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Level E

Mastering MATH



Mastering MATH

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1

Adding and Subtracting Large Numbers

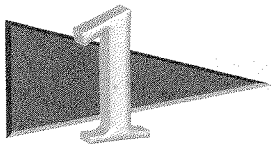


Hank scored a total of 132 points during the basketball season. His teammate Leon scored a total of 146 points. Who scored more points? How many points did they score together?

Solve



► Write a problem about a sport that you like.



Place Value Through Hundred Thousands

A **digit** can have different values. The value of a digit depends on its place in a number. You can use a **place-value** chart to find the value of a digit.

hundred thousands	ten thousands	thousands		hundreds	tens	ones
3	8	6	,	5	2	7

↑
comma

Digit	Place	Value
3	hundred thousands	300 thousands or 300,000
8	ten thousands	80 thousands or 80,000
6	thousands	6 thousands or 6,000
5	hundreds	5 hundreds or 500
2	tens	2 tens or 20
7	ones	7 ones or 7

$$\underbrace{386,527}_{\text{standard form}} = \underbrace{300,000 + 80,000 + 6,000 + 500 + 20 + 7}_{\text{expanded form}}$$

Guided Practice

► Complete the expanded form of each number.

1. $95,874 = 90,000 + \underline{5,000} + 800 + 70 + \underline{4}$

2. $178,346 = 100,000 + \underline{\hspace{2cm}} + 8,000 + 300 + \underline{\hspace{2cm}} + 6$

► Write the value of each underlined digit.

3. $6 \underline{6}, 492$ 6,000

4. 7 2 8,063

Practice

► Complete the expanded form of each number.

1. $17,632 = 10,000 + \underline{\hspace{2cm}} + 600 + \underline{\hspace{2cm}} + 2$

2. $48,950 = 40,000 + 8,000 + \underline{\hspace{2cm}} + \underline{\hspace{2cm}}$

3. $63,747 = \underline{\hspace{2cm}} + 3,000 + \underline{\hspace{2cm}} + 40 + \underline{\hspace{2cm}}$

4. $259,620 = 200,000 + \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + 600 + 20$

5. $644,813 = \underline{\hspace{2cm}} + 40,000 + \underline{\hspace{2cm}} + 800 + \underline{\hspace{2cm}} + 3$

6. $527,500 = 500,000 + \underline{\hspace{2cm}} + 7,000 + \underline{\hspace{2cm}}$

► Write the value of each underlined digit.

7. 3 8,5 2 1

8. 4 9,4 0 0

9. 1 2,7 9 4

10. 5 0,6 3 3

11. 4 5,8 2 0

12. 7 1,5 5 6

13. 1 9 1,7 4 5

14. 8 6 2,9 4 0

15. 3 5 0,2 0 1

16. 2 2 6,5 0 0

17. 4 7 7,3 3 3

18. 6 9 8,9 2 5

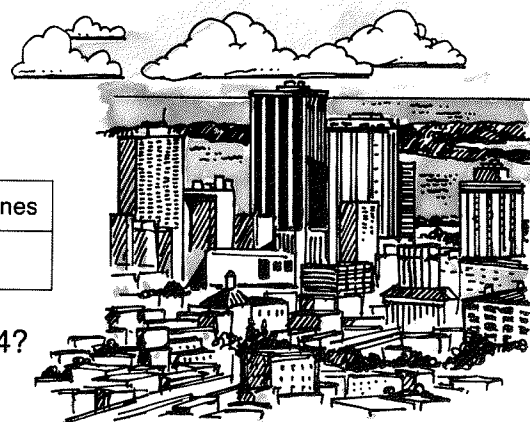
Using Math

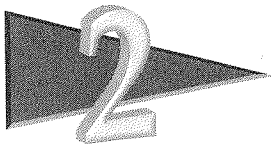
► There are 372,634 people who live in Miami, Florida. Write the number of people who live in Miami in the place-value chart.

hundred thousands	ten thousands	thousands		hundreds	tens	ones
			,			

How many hundred thousands are in the number 372,634?

There are hundred thousands in 372,634.





Use the steps below to add 2- and 3-digit numbers.

Adding 2- and 3-Digit Numbers

When you add numbers with more than one digit, start by adding the ones. Next, add the tens.

$$\begin{array}{r} 28 \\ + 51 \\ \hline 79 \\ \leftarrow \end{array}$$

Sometimes you need to **regroup** to add.

Step 1 Add the ones.	Step 2 Add the tens.	Step 3 Add the hundreds.
$\begin{array}{r} 683 \\ + 572 \\ \hline 5 \end{array}$	$\begin{array}{r} 1 \\ 683 \\ + 572 \\ \hline 55 \end{array}$ <p>Regroup 15 tens as 1 hundred 5 tens.</p>	$\begin{array}{r} 1 \\ 683 \\ + 572 \\ \hline 1,255 \end{array}$ <p>Regroup 12 hundreds as 1 thousand 2 hundreds.</p>

Guided Practice

► Add.

1. $\begin{array}{r} 1 \\ 64 \\ + 29 \\ \hline 93 \end{array}$	2. $\begin{array}{r} 35 \\ + 17 \\ \hline \end{array}$	3. $\begin{array}{r} 480 \\ + 362 \\ \hline \end{array}$	4. $\begin{array}{r} 839 \\ + 476 \\ \hline \end{array}$	5. $\begin{array}{r} 543 \\ + 68 \\ \hline \end{array}$
6. $\begin{array}{r} 198 \\ + 12 \\ \hline \end{array}$	7. $\begin{array}{r} 201 \\ + 49 \\ \hline \end{array}$	8. $\begin{array}{r} 333 \\ + 628 \\ \hline \end{array}$	9. $\begin{array}{r} 639 \\ + 721 \\ \hline \end{array}$	10. $\begin{array}{r} 905 \\ + 198 \\ \hline \end{array}$

Practice

► Add.

1. $\begin{array}{r} 58 \\ + 21 \\ \hline \end{array}$	2. $\begin{array}{r} 19 \\ + 34 \\ \hline \end{array}$	3. $\begin{array}{r} 68 \\ + 29 \\ \hline \end{array}$	4. $\begin{array}{r} 75 \\ + 98 \\ \hline \end{array}$	5. $\begin{array}{r} 26 \\ + 95 \\ \hline \end{array}$
6. $\begin{array}{r} 86 \\ + 64 \\ \hline \end{array}$	7. $\begin{array}{r} 59 \\ + 72 \\ \hline \end{array}$	8. $\begin{array}{r} 205 \\ + 193 \\ \hline \end{array}$	9. $\begin{array}{r} 158 \\ + 346 \\ \hline \end{array}$	10. $\begin{array}{r} 593 \\ + 247 \\ \hline \end{array}$
11. $\begin{array}{r} 581 \\ + 290 \\ \hline \end{array}$	12. $\begin{array}{r} 279 \\ + 186 \\ \hline \end{array}$	13. $\begin{array}{r} 487 \\ + 612 \\ \hline \end{array}$	14. $\begin{array}{r} 936 \\ + 847 \\ \hline \end{array}$	15. $\begin{array}{r} 654 \\ + 721 \\ \hline \end{array}$
16. $\begin{array}{r} 792 \\ + 568 \\ \hline \end{array}$	17. $\begin{array}{r} 155 \\ + 43 \\ \hline \end{array}$	18. $\begin{array}{r} 374 \\ + 62 \\ \hline \end{array}$	19. $\begin{array}{r} 547 \\ + 93 \\ \hline \end{array}$	20. $\begin{array}{r} 836 \\ + 25 \\ \hline \end{array}$

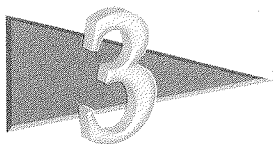
Using Math

- Bob and his mother bought airplane tickets. Bob's ticket cost \$125. His mother's ticket cost \$176. How much did both tickets cost?

Work here.

Both tickets cost _____.





Adding Large Numbers

To add large numbers, start by adding the ones. Regroup when needed.

<div>Step 1</div> Add the ones. <div><div>24,395</div><div>+ 68,403</div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div>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Guided Practice

► Add.

1. $\begin{array}{r} 1 \quad 1 \\ 3,492 \\ + 1,857 \\ \hline 5,349 \end{array}$	2. $\begin{array}{r} 5,608 \\ + 6,429 \\ \hline \end{array}$	3. $\begin{array}{r} 74,537 \\ + 38,087 \\ \hline \end{array}$	4. $\begin{array}{r} 27,506 \\ + 4,891 \\ \hline \end{array}$
5. $\begin{array}{r} 1,987 \\ + 1,031 \\ \hline \end{array}$	6. $\begin{array}{r} 33,144 \\ + 6,138 \\ \hline \end{array}$	7. $\begin{array}{r} 52,934 \\ + 2,591 \\ \hline \end{array}$	8. $\begin{array}{r} 31,844 \\ + 45,933 \\ \hline \end{array}$

Practice

► Add.

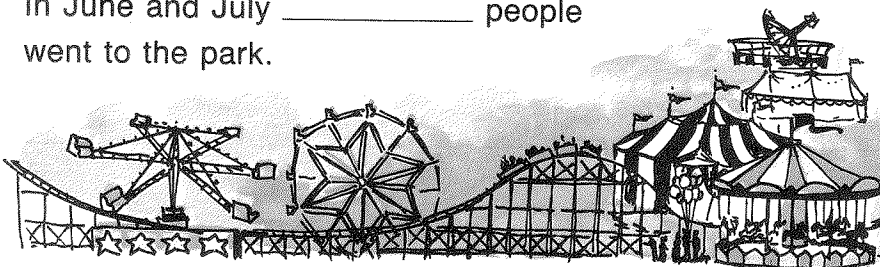
1. $\begin{array}{r} 6,907 \\ +1,243 \\ \hline \end{array}$	2. $\begin{array}{r} 5,496 \\ +4,238 \\ \hline \end{array}$	3. $\begin{array}{r} 1,642 \\ +3,785 \\ \hline \end{array}$	4. $\begin{array}{r} 7,392 \\ +6,578 \\ \hline \end{array}$
5. $\begin{array}{r} 4,165 \\ +9,847 \\ \hline \end{array}$	6. $\begin{array}{r} 3,657 \\ +8,989 \\ \hline \end{array}$	7. $\begin{array}{r} 25,213 \\ +42,654 \\ \hline \end{array}$	8. $\begin{array}{r} 15,637 \\ +23,441 \\ \hline \end{array}$
9. $\begin{array}{r} 37,869 \\ +42,320 \\ \hline \end{array}$	10. $\begin{array}{r} 13,674 \\ +20,579 \\ \hline \end{array}$	11. $\begin{array}{r} 48,279 \\ +23,651 \\ \hline \end{array}$	12. $\begin{array}{r} 29,782 \\ +35,687 \\ \hline \end{array}$
13. $\begin{array}{r} 31,768 \\ +75,489 \\ \hline \end{array}$	14. $\begin{array}{r} 56,025 \\ +68,794 \\ \hline \end{array}$	15. $\begin{array}{r} 73,628 \\ +8,251 \\ \hline \end{array}$	16. $\begin{array}{r} 23,745 \\ +14,965 \\ \hline \end{array}$

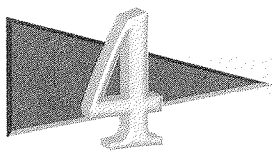
Using Math

► In June, 65,698 people went to Fantasy Park. In July, 62,137 people went to the park. How many people went to the park in June and July?

Work here.

In June and July _____ people went to the park.





Subtracting 2- and 3-Digit Numbers

When you subtract, start by subtracting the ones. Sometimes you will need to regroup.

$$\begin{array}{r} 623 \\ - 489 \\ \hline \end{array}$$

Step 1

$$\begin{array}{r} 1 \text{ } 13 \\ 6 \text{ } 2 \text{ } 3 \\ - 4 \text{ } 8 \text{ } 9 \\ \hline 4 \end{array}$$

Subtract the ones.

Can you subtract
9 ones from 3 ones?

No. Go to the tens.

Regroup 2 tens 3 ones
as 1 ten 13 ones.

Now subtract the ones.

Step 2

$$\begin{array}{r} 11 \\ 5 \text{ } 1 \text{ } 13 \\ 6 \text{ } 2 \text{ } 3 \\ - 4 \text{ } 8 \text{ } 9 \\ \hline 3 \text{ } 4 \end{array}$$

Subtract the tens.

Can you subtract 8 tens
from 1 ten?

No. Go to the hundreds.

Regroup 6 hundreds 1 ten as
5 hundreds 11 tens.

Now subtract the tens.

Step 3

Subtract the hundreds.

$$\begin{array}{r} 11 \\ 5 \text{ } 1 \text{ } 13 \\ 6 \text{ } 2 \text{ } 3 \\ - 4 \text{ } 8 \text{ } 9 \\ \hline 1 \text{ } 3 \text{ } 4 \end{array}$$

You can check your answer by adding.

$$\begin{array}{r} 6 \text{ } 2 \text{ } 3 \\ - 4 \text{ } 8 \text{ } 9 \\ \hline 1 \text{ } 3 \text{ } 4 \end{array} \quad \begin{array}{r} 4 \text{ } 8 \text{ } 9 \\ + 1 \text{ } 3 \text{ } 4 \\ \hline 6 \text{ } 2 \text{ } 3 \end{array}$$

match

add

Guided Practice

► Subtract.

1. $\begin{array}{r} 5 \text{ } 16 \\ 8 \text{ } 8 \\ - 3 \text{ } 9 \\ \hline 27 \end{array}$	2. $\begin{array}{r} 7 \text{ } 1 \\ - 5 \text{ } 2 \\ \hline \end{array}$	3. $\begin{array}{r} 8 \text{ } 9 \text{ } 2 \\ - 6 \text{ } 7 \text{ } 5 \\ \hline \end{array}$	4. $\begin{array}{r} 5 \text{ } 3 \text{ } 1 \\ - 4 \text{ } 6 \text{ } 8 \\ \hline \end{array}$	5. $\begin{array}{r} 9 \text{ } 6 \text{ } 1 \\ - 8 \text{ } 5 \\ \hline \end{array}$
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Practice

► Subtract.

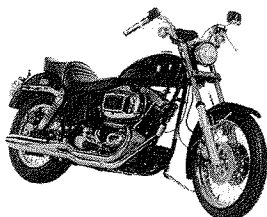
1. $\begin{array}{r} 96 \\ -53 \\ \hline \end{array}$	2. $\begin{array}{r} 27 \\ -19 \\ \hline \end{array}$	3. $\begin{array}{r} 85 \\ -29 \\ \hline \end{array}$	4. $\begin{array}{r} 66 \\ -47 \\ \hline \end{array}$	5. $\begin{array}{r} 74 \\ -37 \\ \hline \end{array}$
6. $\begin{array}{r} 89 \\ -41 \\ \hline \end{array}$	7. $\begin{array}{r} 95 \\ -28 \\ \hline \end{array}$	8. $\begin{array}{r} 587 \\ -316 \\ \hline \end{array}$	9. $\begin{array}{r} 829 \\ -293 \\ \hline \end{array}$	10. $\begin{array}{r} 749 \\ -365 \\ \hline \end{array}$
11. $\begin{array}{r} 428 \\ -267 \\ \hline \end{array}$	12. $\begin{array}{r} 641 \\ -237 \\ \hline \end{array}$	13. $\begin{array}{r} 833 \\ -514 \\ \hline \end{array}$	14. $\begin{array}{r} 542 \\ -256 \\ \hline \end{array}$	15. $\begin{array}{r} 790 \\ -135 \\ \hline \end{array}$
16. $\begin{array}{r} 934 \\ -759 \\ \hline \end{array}$	17. $\begin{array}{r} 387 \\ -94 \\ \hline \end{array}$	18. $\begin{array}{r} 599 \\ -71 \\ \hline \end{array}$	19. $\begin{array}{r} 448 \\ -59 \\ \hline \end{array}$	20. $\begin{array}{r} 273 \\ -29 \\ \hline \end{array}$

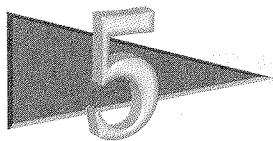
Using Math

- A motorcycle weighs 894 pounds on Earth. The same motorcycle weighs 149 pounds on the moon.
What is the difference in the weight of the motorcycle on Earth and on the moon?

Work here.

The difference is _____ pounds.





Subtracting from Zeros

When you subtract from numbers with zeros, you may have to regroup to more than one place. Before you can subtract the ones, you must regroup. To regroup 4,000, begin with the thousands.

$$\begin{array}{r} 4,000 \\ - 2,793 \\ \hline \end{array}$$

Step 1 Regroup the thousands.

4 thousands = 3 thousands 10 hundreds

$$\begin{array}{r} 3 \text{ } 10 \\ 4,000 \\ - 2,793 \\ \hline \end{array}$$

Step 2 Regroup the hundreds.

10 hundreds = 9 hundreds 10 tens

$$\begin{array}{r} 9 \\ 3 \text{ } 10 \text{ } 10 \\ 4,000 \\ - 2,793 \\ \hline \end{array}$$

Step 3 Regroup the tens.

10 tens = 9 tens 10 ones

$$\begin{array}{r} 9 \text{ } 9 \\ 3 \text{ } 10 \text{ } 10 \text{ } 10 \\ 4,000 \\ - 2,793 \\ \hline \end{array}$$

Step 4 Now you can subtract.

Remember to start with the ones.

$$\begin{array}{r} 9 \text{ } 9 \\ 3 \text{ } 10 \text{ } 10 \text{ } 10 \\ 4,000 \\ - 2,793 \\ \hline 1,207 \end{array}$$

Guided Practice

Subtract.

1.

$$\begin{array}{r} 9 \text{ } 9 \\ 6 \text{ } 10 \text{ } 10 \text{ } 15 \\ 7,005 \\ - 3,859 \\ \hline 3,146 \end{array}$$

2.

$$\begin{array}{r} 600 \\ - 139 \\ \hline \end{array}$$

3.

$$\begin{array}{r} 30,000 \\ - 19,468 \\ \hline \end{array}$$

4.

$$\begin{array}{r} 49,006 \\ - 9,878 \\ \hline \end{array}$$

5.

$$\begin{array}{r} 1,001 \\ - 233 \\ \hline \end{array}$$

6.

$$\begin{array}{r} 9,000 \\ - 1,825 \\ \hline \end{array}$$

7.

$$\begin{array}{r} 70,000 \\ - 36,667 \\ \hline \end{array}$$

8.

$$\begin{array}{r} 19,000 \\ - 4,887 \\ \hline \end{array}$$

Practice

► Subtract.

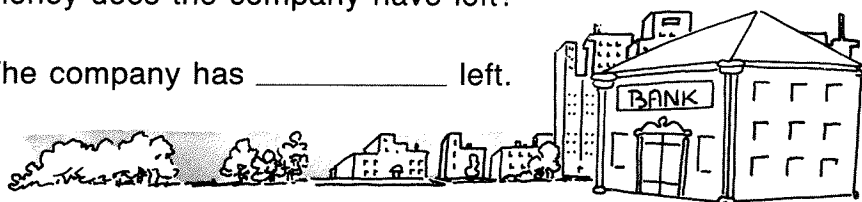
1. $\begin{array}{r} 600 \\ -218 \\ \hline \end{array}$	2. $\begin{array}{r} 900 \\ -333 \\ \hline \end{array}$	3. $\begin{array}{r} 800 \\ -176 \\ \hline \end{array}$	4. $\begin{array}{r} 700 \\ -594 \\ \hline \end{array}$
5. $\begin{array}{r} 6,004 \\ -2,587 \\ \hline \end{array}$	6. $\begin{array}{r} 9,005 \\ -1,037 \\ \hline \end{array}$	7. $\begin{array}{r} 4,000 \\ -1,957 \\ \hline \end{array}$	8. $\begin{array}{r} 4,000 \\ -3,422 \\ \hline \end{array}$
9. $\begin{array}{r} 7,000 \\ -3,014 \\ \hline \end{array}$	10. $\begin{array}{r} 17,000 \\ -10,338 \\ \hline \end{array}$	11. $\begin{array}{r} 90,900 \\ -83,456 \\ \hline \end{array}$	12. $\begin{array}{r} 28,002 \\ -14,773 \\ \hline \end{array}$
13. $\begin{array}{r} 80,075 \\ -43,280 \\ \hline \end{array}$	14. $\begin{array}{r} 32,000 \\ -7,926 \\ \hline \end{array}$	15. $\begin{array}{r} 23,000 \\ -6,746 \\ \hline \end{array}$	16. $\begin{array}{r} 42,000 \\ -36,394 \\ \hline \end{array}$

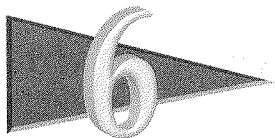
Using Math

► A company opened a bank account with \$26,000. In one week the company took \$14,966 out of the bank. How much money does the company have left?

Work here.

The company has _____ left.



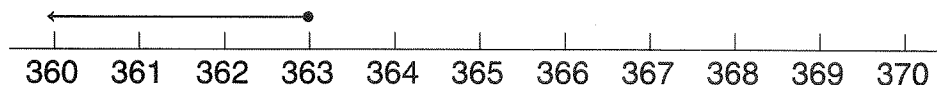


Rounding Numbers

You **round** numbers to find out about how many.

Round 363 to the nearest ten.

Is 363 nearer to 360 or to 370?



363 is nearer to 360.

Follow these steps to help you round numbers.

Step 1 Underline the place you are rounding to. **3 6 3**

Step 2 Circle the next digit to the right. **3 6 ③**

Step 3 If the circled digit is **less than 5**, round down. **3 6 0**
If the circled digit is **5 or more**, round up.

Round 1,538 to each given place.

Nearest Ten	Nearest Hundred	Nearest Thousand
1,5 <u>3</u> ⑧ round up 1,5 <u>4</u> 0 ten	1, <u>5</u> ③ 8 round down 1, <u>5</u> 0 0 hundred	1, ⑤ 3 8 round up 2, <u>0</u> 0 0 thousand

Guided Practice

► Round each number to the nearest ten.

1. 75 80

2. 858 _____

3. 4,922 _____

► Round each number to the nearest hundred.

4. 310 300

5. 884 _____

6. 6,721 _____

► Round each number to the nearest thousand.

7. 1,840 2000

8. 5,430 _____

9. 12,536 _____

Practice

► Round each number to the nearest ten.

1. 22 _____

2. 55 _____

3. 388 _____

4. 912 _____

5. 506 _____

6. 1,843 _____

► Round each number to the nearest hundred.

7. 740 _____

8. 458 _____

9. 943 _____

10. 3,929 _____

11. 6,522 _____

12. 78,378 _____

13. 99,406 _____

14. 55,720 _____

► Round each number to the nearest thousand.

15. 4,800 _____

16. 8,622 _____

17. 1,756 _____

18. 20,998 _____

19. 36,510 _____

20. 52,100 _____

Using Math

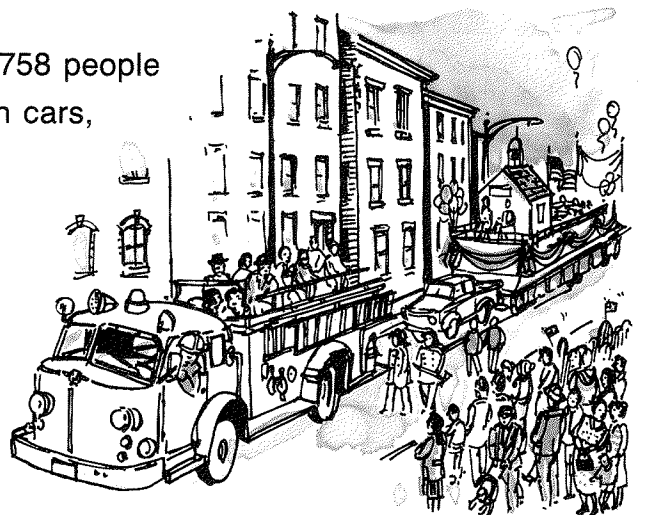
► The city has a parade every year. One year 13,758 people walked in the parade. And 3,826 people rode on cars, floats, and fire engines.

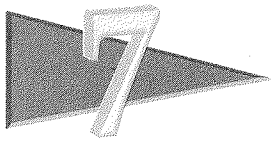
About how many people walked in the parade?

(Round to the nearest hundred.) _____

About how many people rode in the parade?

(Round to the nearest hundred.) _____





Inches and Feet

The distance from one end of an object to the other end is its **length** or **height**. You measure how long an object is to find its length. You measure how tall an object is to find its height.

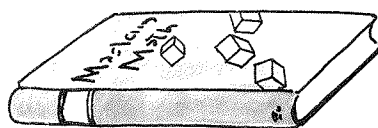
An **inch** and a **foot** are units of measurement used to tell length or height. Inches are used to measure short objects. Feet are used to measure long objects or distances.

A postage stamp is about 1 inch long.

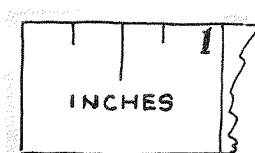


1 inch

Your *Mastering Math* book is about 1 foot long.



1 foot



12 inches = 1 foot

Guided Practice

► Ring the unit of measure you would use.

1. the height of a friend inch <u>foot</u>	2. the length of a toothbrush inch foot
3. the length of a photograph inch foot	4. the height of a door inch foot

Practice

► Ring the unit of measure you would use.

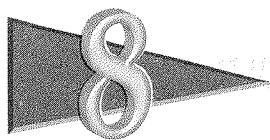
1. the length of a rug inch foot	2. the length of a paper clip inch foot
3. the length of an ink pen inch foot	4. the length of a swimming pool inch foot
5. the length of a car inch foot	6. the height of a cup inch foot
7. the length of a feather inch foot	8. the length of a street inch foot
9. the height of a cat inch foot	10. the length of a jump rope inch foot
11. the length of a pair of scissors inch foot	12. the height of a flagpole inch foot

Using Math

► Laura painted a picture for her dad. It is going to be his Father's Day gift. Laura wants to frame the painting before she gives it to him. Laura needs to measure the painting to get the right-size frame. Should Laura measure the painting in inches or feet?

She should measure the painting in _____.





Problem Solving

Estimation

Mark drove 387 miles on Monday.

He drove 221 miles on Tuesday.

About how many miles in all did Mark drive?



The word **about** means an exact answer is not needed.
You can estimate the answer.

Round each number to the nearest hundred.

Step 1 Underline the place you are rounding to.

3 8 7

2 2 1

Step 2 Circle the next digit to the right.

3 8 7

2 2 1

Step 3 If the circled digit is less than 5, round down.

If the circled digit is 5 or more, round up.

387 → 400 round up

+ 221 → + 200 round down

Mark drove about 600 miles.

Guided Practice

► Round to the nearest hundred.

Estimate to solve.

1. Kay is reading a 372-page book.
She has read 126 pages. About how
many pages does Kay have left to read?

$$\begin{array}{r} 372 \longrightarrow 400 \\ - 126 \longrightarrow -100 \\ \hline \text{about } 300 \text{ pages} \end{array}$$

2. Alicia hit a golf ball 288 yards.
Leo hit a golf ball 214 yards.
About how much farther
did Alicia hit the golf ball than Leo?

$$\begin{array}{r} 288 \longrightarrow \\ - 214 \longrightarrow - \\ \hline \text{about } \quad \quad \text{yards} \end{array}$$

Practice

► Round to the nearest hundred.

Estimate to solve.

1. Food Mart has 226 workers at one store.
They have 178 workers at the other store.
About how many workers in all
does Food Mart have?

$$\begin{array}{r} 226 \longrightarrow \\ + 178 \longrightarrow + \\ \hline \end{array}$$

about _____ workers

2. There are 312 seats on the train.
There are 228 people seated in the train.
About how many empty seats
are there on that train?

$$\begin{array}{r} 312 \longrightarrow \\ - 228 \longrightarrow - \\ \hline \end{array}$$

about _____ seats

3. Luis has saved 598 pennies.
Carl has saved 215 pennies.
About how many more pennies
does Luis have than Carl?

$$\begin{array}{r} 598 \longrightarrow \\ - 215 \longrightarrow - \\ \hline \end{array}$$

about _____ pennies

4. Seafood Plus needed 424 chairs
for the main dining room.
They need 188 chairs for another room.
About how many chairs in all did they need?

$$\begin{array}{r} 424 \longrightarrow \\ + 188 \longrightarrow + \\ \hline \end{array}$$

about _____ chairs

5. Sam has a 205-page book.
He has read 97 pages.
About how many pages of the book
has Sam not read yet?

$$\begin{array}{r} 205 \longrightarrow \\ - 97 \longrightarrow - \\ \hline \end{array}$$

about _____ pages

6. Ernie has 375 polished rocks in his rock collection.
Karen has 284 polished rocks.
About how many rocks in all do they have?

$$\begin{array}{r} 375 \longrightarrow \\ + 284 \longrightarrow + \\ \hline \end{array}$$

about _____ rocks

► Complete the expanded form of each number. pages 2–3

1. $42,863 = 40,000 + \underline{\hspace{2cm}} + 800 + \underline{\hspace{2cm}} + 3$

2. $18,790 = \underline{\hspace{2cm}} + 8,000 + 700 + \underline{\hspace{2cm}}$

3. $655,315 = 600,000 + \underline{\hspace{2cm}} + 5,000 + 300 + \underline{\hspace{2cm}} + 5$

4. $964,200 = \underline{\hspace{2cm}} + \underline{\hspace{2cm}} + 4,000 + 200$

► Write the value of each underlined digit. pages 2–3

5. $\underline{2} 6,393$ _____

6. $8 \underline{1},752$ _____

7. $748, \underline{5} 46$ _____

8. $\underline{3} 90,480$ _____

► Add.

pages 4–5 9. $\begin{array}{r} 43 \\ +19 \\ \hline \end{array}$	10. $\begin{array}{r} 76 \\ +27 \\ \hline \end{array}$	11. $\begin{array}{r} 194 \\ +558 \\ \hline \end{array}$	12. $\begin{array}{r} 491 \\ +718 \\ \hline \end{array}$
pages 6–7 13. $\begin{array}{r} 4,589 \\ +2,656 \\ \hline \end{array}$	14. $\begin{array}{r} 9,635 \\ +3,108 \\ \hline \end{array}$	15. $\begin{array}{r} 23,637 \\ +30,287 \\ \hline \end{array}$	16. $\begin{array}{r} 17,659 \\ +85,608 \\ \hline \end{array}$

► Subtract.

pages 8–9 17. $\begin{array}{r} 62 \\ -19 \\ \hline \end{array}$	18. $\begin{array}{r} 92 \\ -34 \\ \hline \end{array}$	19. $\begin{array}{r} 957 \\ -468 \\ \hline \end{array}$	20. $\begin{array}{r} 831 \\ -255 \\ \hline \end{array}$
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CHAPTER 1 Review

► Subtract. pages 10–11

21. $\begin{array}{r} 8,009 \\ - 5,824 \\ \hline \end{array}$	22. $\begin{array}{r} 300 \\ - 172 \\ \hline \end{array}$	23. $\begin{array}{r} 50,007 \\ - 33,423 \\ \hline \end{array}$	24. $\begin{array}{r} 76,000 \\ - 9,562 \\ \hline \end{array}$
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► Round each number to the nearest ten. pages 12–13

25. 83 _____

26. 18 _____

27. 145 _____

28. 789 _____

► Round each number to the nearest hundred. pages 12–13

29. 107 _____

30. 875 _____

31. 7,439 _____

32. 48,552 _____

► Round each number to the nearest thousand. pages 12–13

33. 3,540 _____

34. 5,299 _____

35. 91,328 _____

36. 40,790 _____

► Ring the unit of measure you would use. pages 14–15

37. the length of a pencil inch foot	38. the height of a basketball net inch foot
39. the length of a newborn baby inch foot	40. the length of a bowling alley inch foot

CHAPTER 1 Review

► Round to the nearest hundred.

Estimate to solve. pages 16–17

41. Hotel America has 384 rooms.

136 rooms are empty.

About how many rooms are in use?

$$\begin{array}{r} 384 \longrightarrow \\ - 136 \longrightarrow - \\ \hline \end{array}$$

about _____ rooms

42. The auditorium has 575 seats.

There are 428 students sitting in the auditorium.

About how many seats are empty?

$$\begin{array}{r} 575 \longrightarrow \\ - 428 \longrightarrow - \\ \hline \end{array}$$

about _____ seats

43. Jessie drove 405 miles on Saturday.

She drove 362 miles on Sunday.

About how many miles in all did she drive?

$$\begin{array}{r} 405 \longrightarrow \\ + 362 \longrightarrow + \\ \hline \end{array}$$

about _____ miles

44. There were 245 pup tents in Parker

Campground. There are 123

dome tents. About how many

tents in all were at the campgrounds?

$$\begin{array}{r} 245 \longrightarrow \\ + 123 \longrightarrow + \\ \hline \end{array}$$

about _____ tents

45. Mr. Granowski sold 479 hot dogs

in June. He sold 399 hot dogs

in July. About how many hot

dogs in all did Mr. Granowski sell?

$$\begin{array}{r} 479 \longrightarrow \\ + 399 \longrightarrow + \\ \hline \end{array}$$

about _____ hot dogs

46. Paula needed to sell 823 boxes of cookies

to get a radio. She already sold 667 boxes of

cookies. About how many more boxes of cookies

did Paula need to sell?

$$\begin{array}{r} 823 \longrightarrow \\ - 667 \longrightarrow - \\ \hline \end{array}$$

about _____ cookies

CHAPTER 1 Test

► Complete the expanded form of each number.

1. $73,458 = 70,000 + \underline{\hspace{2cm}} + 400 + \underline{\hspace{2cm}} + 8$

2. $149,362 = 100,000 + \underline{\hspace{2cm}} + 9,000 + \underline{\hspace{2cm}} + 60 + \underline{\hspace{2cm}}$

► Write the value of each underlined digit.

3. $17,\underline{6}42$ _____

4. $\underline{4}3,951$ _____

► Add.

5. $\begin{array}{r} 78 \\ + 64 \\ \hline \end{array}$	6. $\begin{array}{r} 256 \\ + 479 \\ \hline \end{array}$	7. $\begin{array}{r} 5,356 \\ + 3,736 \\ \hline \end{array}$	8. $\begin{array}{r} 28,542 \\ + 17,539 \\ \hline \end{array}$
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► Subtract.

9. $\begin{array}{r} 56 \\ - 27 \\ \hline \end{array}$	10. $\begin{array}{r} 734 \\ - 388 \\ \hline \end{array}$	11. $\begin{array}{r} 6,000 \\ - 3,294 \\ \hline \end{array}$	12. $\begin{array}{r} 30,000 \\ - 15,672 \\ \hline \end{array}$
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► Round each number to the nearest ten.

13. 25 _____

14. 451 _____

► Round each number to the nearest thousand.

15. 5,830 _____

16. 24,370 _____

► Ring the unit of measure you would use.

17. the height of a diving board	18. the length of one finger
inch foot	inch foot

CHAPTER 1 Test

► Round to the nearest hundred.

Estimate to solve.

19. Northside School has 598 students.
Southside School has 316 students.
About how many students are in
both schools?

$$\begin{array}{r} 598 \longrightarrow \\ + 316 \longrightarrow + \\ \hline \end{array}$$

about _____ students

20. Tim has 659 tickets to sell for
a school play. He sells 225 tickets.
About how many more tickets must
Tim sell?

$$\begin{array}{r} 659 \longrightarrow \\ - 225 \longrightarrow - \\ \hline \end{array}$$

about _____ tickets

21. Laura has driven 372 miles from home.
She must drive 249 more miles to get to
St. Louis. About how far is it from Laura's
house to St. Louis?

$$\begin{array}{r} 372 \longrightarrow \\ + 249 \longrightarrow + \\ \hline \end{array}$$

about _____ miles

22. Marco has a book that has 481 pages.
He has read 117 pages. About
how many more pages does
Marco have to read in his book?

$$\begin{array}{r} 481 \longrightarrow \\ - 117 \longrightarrow - \\ \hline \end{array}$$

about _____ pages

23. There are 263 seats on a train.
The conductor counted
185 passengers on the train. About how
many empty seats are on the train?

$$\begin{array}{r} 263 \longrightarrow \\ - 185 \longrightarrow - \\ \hline \end{array}$$

about _____ seats

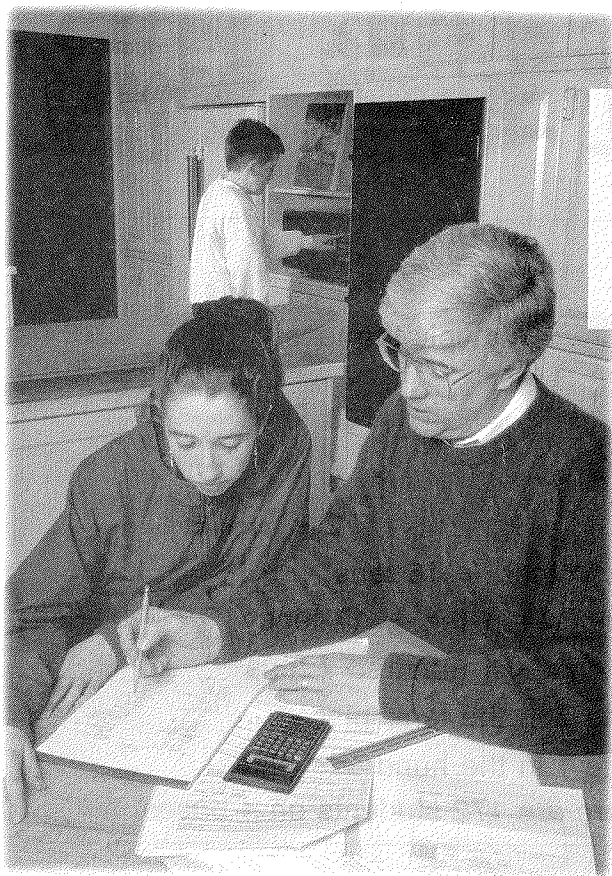
24. Ann's Flower Shop ordered 297 roses on
Wednesday. They ordered 174 roses
on Friday. About how many roses
did Ann's Flower Shop order both days?

$$\begin{array}{r} 297 \longrightarrow \\ + 174 \longrightarrow + \\ \hline \end{array}$$

about _____ roses

2

Multiplying by 1- and 2-Digit Numbers

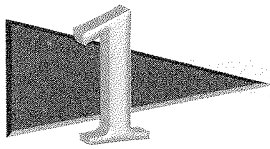


Kathy and her father used a calculator to multiply 47 by 20. The display showed 9,400. Is this answer correct? How can you tell? What did they probably do to get this answer?

Solve



Write a problem to solve with a calculator.

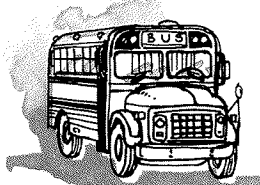
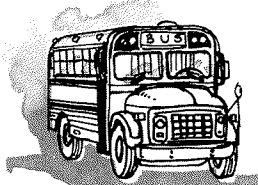
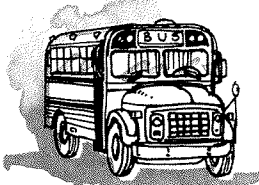
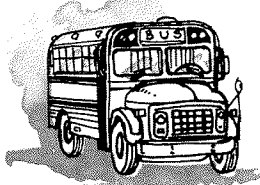


Multiplying by 1-Digit Numbers

Each school bus carries 43 students to the soccer game. How many students are on 4 buses?

$$\begin{array}{r} 43 \\ \times 4 \\ \hline \end{array}$$

factors



Multiply 43 by 4 to find the answer.

Step 1 Multiply the ones.

$$\begin{array}{r} 1 \\ 43 \\ \times 4 \\ \hline 2 \end{array}$$

$4 \times 3 \text{ ones} = 12 \text{ ones}$

Regroup 12 ones as 1 ten 2 ones.

Write 2 in the ones' place.

Write 1 in the tens' column.

Step 2 Multiply the tens.

$$\begin{array}{r} 1 \\ 43 \\ \times 4 \\ \hline 172 \end{array} \leftarrow \text{product}$$

$4 \times 4 \text{ tens} = 16 \text{ tens}$

$16 \text{ tens} + 1 \text{ ten} = 17 \text{ tens}$

$17 \text{ tens} = 1 \text{ hundred } 7 \text{ tens}$

Write 7 in the tens' place.

Write 1 in the hundreds' place.

There are 172 students on 4 buses.

Guided Practice

► Multiply.

1. $\begin{array}{r} 1 \\ 53 \\ \times 4 \\ \hline 212 \end{array}$	2. $\begin{array}{r} 43 \\ \times 2 \\ \hline \end{array}$	3. $\begin{array}{r} 36 \\ \times 3 \\ \hline \end{array}$	4. $\begin{array}{r} 20 \\ \times 9 \\ \hline \end{array}$	5. $\begin{array}{r} 78 \\ \times 7 \\ \hline \end{array}$
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Practice

► Multiply.

1. $\begin{array}{r} 14 \\ \times 2 \\ \hline \end{array}$	2. $\begin{array}{r} 22 \\ \times 6 \\ \hline \end{array}$	3. $\begin{array}{r} 42 \\ \times 3 \\ \hline \end{array}$	4. $\begin{array}{r} 46 \\ \times 7 \\ \hline \end{array}$	5. $\begin{array}{r} 89 \\ \times 5 \\ \hline \end{array}$
6. $\begin{array}{r} 21 \\ \times 9 \\ \hline \end{array}$	7. $\begin{array}{r} 96 \\ \times 8 \\ \hline \end{array}$	8. $\begin{array}{r} 73 \\ \times 4 \\ \hline \end{array}$	9. $\begin{array}{r} 40 \\ \times 3 \\ \hline \end{array}$	10. $\begin{array}{r} 56 \\ \times 6 \\ \hline \end{array}$
11. $\begin{array}{r} 93 \\ \times 2 \\ \hline \end{array}$	12. $\begin{array}{r} 68 \\ \times 9 \\ \hline \end{array}$	13. $\begin{array}{r} 72 \\ \times 4 \\ \hline \end{array}$	14. $\begin{array}{r} 67 \\ \times 8 \\ \hline \end{array}$	15. $\begin{array}{r} 36 \\ \times 4 \\ \hline \end{array}$
16. $\begin{array}{r} 53 \\ \times 7 \\ \hline \end{array}$	17. $\begin{array}{r} 81 \\ \times 9 \\ \hline \end{array}$	18. $\begin{array}{r} 48 \\ \times 6 \\ \hline \end{array}$	19. $\begin{array}{r} 75 \\ \times 3 \\ \hline \end{array}$	20. $\begin{array}{r} 26 \\ \times 8 \\ \hline \end{array}$

Problem Solving

► Round to the nearest hundred.

Estimate to solve.

Chu read a book with 382 pages.

He read another book with 330 pages.

How many pages in all did Chu read?

$$\begin{array}{r}
 382 \longrightarrow \\
 + 330 \longrightarrow + \\
 \hline
 \end{array}$$

about pages



Multiplying by Tens

Multiply 23 by 40.

Step 1 Multiply 23 by 0 ones.

$$\begin{array}{r} 23 \\ \times 40 \\ \hline 0 \end{array}$$

$$0 \times 23 = 0$$

Write 0 in the ones' place.

Step 2 Multiply 23 by 4 tens.

$$\begin{array}{r} 1 \\ 23 \\ \times 40 \\ \hline 920 \end{array}$$

$$4 \times 3 = 12$$

Write 2 in the tens' place.

Write 1 in the tens' column.

$$4 \times 2 = 8, 8 + 1 = 9$$

Write 9 in the hundreds' place.

Guided Practice

► Multiply.

1. $\begin{array}{r} 46 \\ \times 20 \\ \hline 920 \end{array}$	2. $\begin{array}{r} 53 \\ \times 10 \\ \hline \end{array}$	3. $\begin{array}{r} 28 \\ \times 30 \\ \hline \end{array}$	4. $\begin{array}{r} 30 \\ \times 60 \\ \hline \end{array}$	5. $\begin{array}{r} 67 \\ \times 70 \\ \hline \end{array}$
6. $\begin{array}{r} 46 \\ \times 10 \\ \hline \end{array}$	7. $\begin{array}{r} 34 \\ \times 10 \\ \hline \end{array}$	8. $\begin{array}{r} 53 \\ \times 40 \\ \hline \end{array}$	9. $\begin{array}{r} 15 \\ \times 50 \\ \hline \end{array}$	10. $\begin{array}{r} 19 \\ \times 80 \\ \hline \end{array}$

Practice

► Multiply.

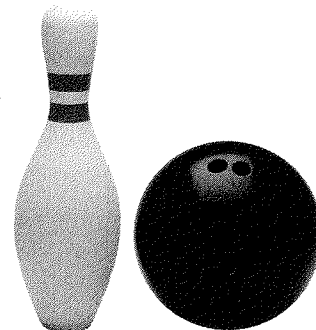
1. $\begin{array}{r} 42 \\ \times 10 \\ \hline \end{array}$	2. $\begin{array}{r} 35 \\ \times 20 \\ \hline \end{array}$	3. $\begin{array}{r} 41 \\ \times 30 \\ \hline \end{array}$	4. $\begin{array}{r} 56 \\ \times 40 \\ \hline \end{array}$	5. $\begin{array}{r} 31 \\ \times 10 \\ \hline \end{array}$
6. $\begin{array}{r} 63 \\ \times 30 \\ \hline \end{array}$	7. $\begin{array}{r} 37 \\ \times 50 \\ \hline \end{array}$	8. $\begin{array}{r} 54 \\ \times 70 \\ \hline \end{array}$	9. $\begin{array}{r} 28 \\ \times 10 \\ \hline \end{array}$	10. $\begin{array}{r} 49 \\ \times 20 \\ \hline \end{array}$
11. $\begin{array}{r} 33 \\ \times 30 \\ \hline \end{array}$	12. $\begin{array}{r} 64 \\ \times 40 \\ \hline \end{array}$	13. $\begin{array}{r} 90 \\ \times 10 \\ \hline \end{array}$	14. $\begin{array}{r} 67 \\ \times 50 \\ \hline \end{array}$	15. $\begin{array}{r} 15 \\ \times 40 \\ \hline \end{array}$
16. $\begin{array}{r} 90 \\ \times 60 \\ \hline \end{array}$	17. $\begin{array}{r} 18 \\ \times 10 \\ \hline \end{array}$	18. $\begin{array}{r} 25 \\ \times 60 \\ \hline \end{array}$	19. $\begin{array}{r} 74 \\ \times 20 \\ \hline \end{array}$	20. $\begin{array}{r} 59 \\ \times 70 \\ \hline \end{array}$

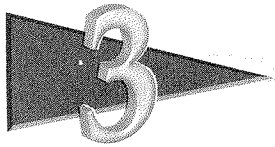
Using Math

► The Willowbrook Bowling Center has 22 bowling lanes. Each lane has 10 pins. How many bowling pins are there in all?

There are _____ bowling pins in all.

Work here.





Multiplying by 11 Through 19

Three steps are needed to multiply 62 by 15.

Step 1 Multiply 62 by 5 ones. $\begin{array}{r} 1 \\ 62 \\ \times 5 \\ \hline 310 \end{array}$ $5 \times 62 = 310$	Step 2 Multiply 62 by 1 ten. $\begin{array}{r} 1 \\ 62 \\ \times 15 \\ \hline 310 \\ 620 \end{array}$ $10 \times 62 = 620$ Remember to write the 0 in the ones' place.	Step 3 Add. $\begin{array}{r} 1 \\ 62 \\ \times 15 \\ \hline 310 \\ + 620 \\ \hline 930 \end{array}$
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Guided Practice

► Multiply.

1. $\begin{array}{r} 1 \\ 26 \\ \times 12 \\ \hline 52 \\ + 260 \\ \hline 312 \end{array}$	2. $\begin{array}{r} 32 \\ \times 14 \\ \hline \end{array}$	3. $\begin{array}{r} 52 \\ \times 11 \\ \hline \end{array}$	4. $\begin{array}{r} 83 \\ \times 15 \\ \hline \end{array}$	5. $\begin{array}{r} 45 \\ \times 18 \\ \hline \end{array}$
6. $\begin{array}{r} 37 \\ \times 13 \\ \hline \end{array}$	7. $\begin{array}{r} 44 \\ \times 16 \\ \hline \end{array}$	8. $\begin{array}{r} 58 \\ \times 17 \\ \hline \end{array}$	9. $\begin{array}{r} 61 \\ \times 19 \\ \hline \end{array}$	10. $\begin{array}{r} 79 \\ \times 11 \\ \hline \end{array}$

Practice

► Multiply.

1. $\begin{array}{r} 65 \\ \times 11 \\ \hline \end{array}$	2. $\begin{array}{r} 39 \\ \times 14 \\ \hline \end{array}$	3. $\begin{array}{r} 52 \\ \times 12 \\ \hline \end{array}$	4. $\begin{array}{r} 27 \\ \times 13 \\ \hline \end{array}$	5. $\begin{array}{r} 33 \\ \times 18 \\ \hline \end{array}$
6. $\begin{array}{r} 84 \\ \times 15 \\ \hline \end{array}$	7. $\begin{array}{r} 63 \\ \times 16 \\ \hline \end{array}$	8. $\begin{array}{r} 92 \\ \times 12 \\ \hline \end{array}$	9. $\begin{array}{r} 87 \\ \times 17 \\ \hline \end{array}$	10. $\begin{array}{r} 44 \\ \times 13 \\ \hline \end{array}$
11. $\begin{array}{r} 23 \\ \times 18 \\ \hline \end{array}$	12. $\begin{array}{r} 66 \\ \times 19 \\ \hline \end{array}$	13. $\begin{array}{r} 48 \\ \times 14 \\ \hline \end{array}$	14. $\begin{array}{r} 73 \\ \times 17 \\ \hline \end{array}$	15. $\begin{array}{r} 21 \\ \times 15 \\ \hline \end{array}$

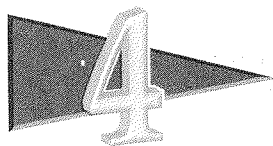
Using Math

► Bob runs in the marathon every year. He prepares by running 16 miles every week. How many miles does he run in 25 weeks?

Bob runs _____ miles in 25 weeks.

Work here.





Multiplying by 2-Digit Numbers

Multiply 68 by 42.

Step 1	Step 2	Step 3
Multiply 68 by 2 ones.	Multiply 68 by 4 tens.	Add.
$ \begin{array}{r} 1 \\ 68 \\ \times 42 \\ \hline 136 \end{array} $	$ \begin{array}{r} 3 \\ 1 \\ 68 \\ \times 42 \\ \hline 136 \\ 2720 \end{array} $	$ \begin{array}{r} 3 \\ 1 \\ 68 \\ \times 42 \\ \hline 136 \\ +2720 \\ \hline 2,856 \end{array} $

Guided Practice

► Multiply.

1. $ \begin{array}{r} 1 \\ 38 \\ \times 24 \\ \hline 152 \\ +760 \\ \hline 912 \end{array} $	2. $ \begin{array}{r} 62 \\ \times 35 \\ \hline \end{array} $	3. $ \begin{array}{r} 45 \\ \times 32 \\ \hline \end{array} $	4. $ \begin{array}{r} 29 \\ \times 63 \\ \hline \end{array} $	5. $ \begin{array}{r} 41 \\ \times 87 \\ \hline \end{array} $
6. $ \begin{array}{r} 52 \\ \times 35 \\ \hline \end{array} $	7. $ \begin{array}{r} 67 \\ \times 42 \\ \hline \end{array} $	8. $ \begin{array}{r} 74 \\ \times 51 \\ \hline \end{array} $	9. $ \begin{array}{r} 37 \\ \times 73 \\ \hline \end{array} $	10. $ \begin{array}{r} 83 \\ \times 21 \\ \hline \end{array} $

Practice

► Multiply.

1. $\begin{array}{r} 23 \\ \times 25 \\ \hline \end{array}$	2. $\begin{array}{r} 92 \\ \times 44 \\ \hline \end{array}$	3. $\begin{array}{r} 48 \\ \times 81 \\ \hline \end{array}$	4. $\begin{array}{r} 36 \\ \times 57 \\ \hline \end{array}$	5. $\begin{array}{r} 63 \\ \times 26 \\ \hline \end{array}$
6. $\begin{array}{r} 40 \\ \times 58 \\ \hline \end{array}$	7. $\begin{array}{r} 66 \\ \times 35 \\ \hline \end{array}$	8. $\begin{array}{r} 89 \\ \times 24 \\ \hline \end{array}$	9. $\begin{array}{r} 75 \\ \times 43 \\ \hline \end{array}$	10. $\begin{array}{r} 97 \\ \times 48 \\ \hline \end{array}$
11. $\begin{array}{r} 86 \\ \times 52 \\ \hline \end{array}$	12. $\begin{array}{r} 21 \\ \times 48 \\ \hline \end{array}$	13. $\begin{array}{r} 67 \\ \times 94 \\ \hline \end{array}$	14. $\begin{array}{r} 73 \\ \times 82 \\ \hline \end{array}$	15. $\begin{array}{r} 51 \\ \times 71 \\ \hline \end{array}$

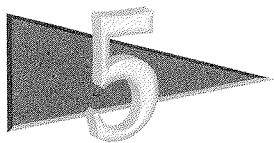
Using Math

- There are 35 rows in the cornfield. Each row has 24 stalks of corn. How many stalks of corn are there in the field?

There are _____ stalks of corn.

Work here.





Multiplying 3-Digit Numbers

Multiply 320 by 17.

Step 1 Multiply 320 by 7 ones. $\begin{array}{r} 1 \\ 320 \\ \times 17 \\ \hline 2240 \end{array}$	Step 2 Multiply 320 by 1 ten. $\begin{array}{r} 1 \\ 320 \\ \times 17 \\ \hline 2240 \\ 3200 \end{array}$	Step 3 Add. $\begin{array}{r} 1 \\ 320 \\ \times 17 \\ \hline 2240 \\ + 3200 \\ \hline 5,440 \end{array}$
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Guided Practice

► Multiply.

1. $\begin{array}{r} 12 \\ 137 \\ \times 13 \\ \hline 411 \\ + 1370 \\ \hline 1,781 \end{array}$	2. $\begin{array}{r} 245 \\ \times 15 \\ \hline \end{array}$	3. $\begin{array}{r} 159 \\ \times 11 \\ \hline \end{array}$	4. $\begin{array}{r} 487 \\ \times 16 \\ \hline \end{array}$	5. $\begin{array}{r} 827 \\ \times 19 \\ \hline \end{array}$
6. $\begin{array}{r} 332 \\ \times 14 \\ \hline \end{array}$	7. $\begin{array}{r} 365 \\ \times 12 \\ \hline \end{array}$	8. $\begin{array}{r} 596 \\ \times 18 \\ \hline \end{array}$	9. $\begin{array}{r} 543 \\ \times 17 \\ \hline \end{array}$	10. $\begin{array}{r} 616 \\ \times 13 \\ \hline \end{array}$

Practice

► Multiply.

1. $\begin{array}{r} 276 \\ \times 13 \\ \hline \end{array}$	2. $\begin{array}{r} 482 \\ \times 11 \\ \hline \end{array}$	3. $\begin{array}{r} 573 \\ \times 12 \\ \hline \end{array}$	4. $\begin{array}{r} 842 \\ \times 14 \\ \hline \end{array}$	5. $\begin{array}{r} 398 \\ \times 16 \\ \hline \end{array}$
6. $\begin{array}{r} 646 \\ \times 18 \\ \hline \end{array}$	7. $\begin{array}{r} 219 \\ \times 15 \\ \hline \end{array}$	8. $\begin{array}{r} 697 \\ \times 12 \\ \hline \end{array}$	9. $\begin{array}{r} 893 \\ \times 17 \\ \hline \end{array}$	10. $\begin{array}{r} 159 \\ \times 19 \\ \hline \end{array}$
11. $\begin{array}{r} 258 \\ \times 11 \\ \hline \end{array}$	12. $\begin{array}{r} 371 \\ \times 15 \\ \hline \end{array}$	13. $\begin{array}{r} 816 \\ \times 16 \\ \hline \end{array}$	14. $\begin{array}{r} 945 \\ \times 12 \\ \hline \end{array}$	15. $\begin{array}{r} 725 \\ \times 15 \\ \hline \end{array}$

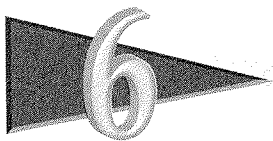
Using Math

- The Lincoln Theater has 368 seats. The play is given 16 times each month. How many people can see the play each month if the theater is full every time?

_____ people can see the play each month.

Work here.





Multiplying 3-Digit Numbers

Multiply 592 by 86.

Step 1 Multiply 592 by 6 ones. $ \begin{array}{r} 51 \\ 592 \\ \times 86 \\ \hline 3552 \end{array} $	Step 2 Multiply 592 by 8 tens. $ \begin{array}{r} 71 \\ 51 \\ 592 \\ \times 86 \\ \hline 3552 \\ 47360 \end{array} $	Step 3 Add. $ \begin{array}{r} 71 \\ 51 \\ 592 \\ \times 86 \\ \hline 3552 \\ +47360 \\ \hline 50,912 \end{array} $
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Guided Practice

► Multiply.

1. $ \begin{array}{r} 12 \\ 235 \\ \times 25 \\ \hline 1175 \\ +4700 \\ \hline 5,875 \end{array} $	2. $ \begin{array}{r} 313 \\ \times 37 \\ \hline \end{array} $	3. $ \begin{array}{r} 468 \\ \times 42 \\ \hline \end{array} $	4. $ \begin{array}{r} 639 \\ \times 47 \\ \hline \end{array} $	5. $ \begin{array}{r} 726 \\ \times 93 \\ \hline \end{array} $
6. $ \begin{array}{r} 547 \\ \times 26 \\ \hline \end{array} $	7. $ \begin{array}{r} 271 \\ \times 36 \\ \hline \end{array} $	8. $ \begin{array}{r} 102 \\ \times 58 \\ \hline \end{array} $	9. $ \begin{array}{r} 824 \\ \times 81 \\ \hline \end{array} $	10. $ \begin{array}{r} 328 \\ \times 75 \\ \hline \end{array} $

Practice

► Multiply.

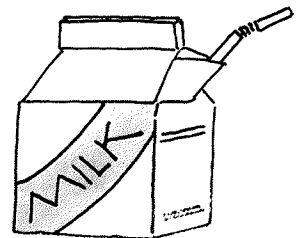
1. $\begin{array}{r} 163 \\ \times 27 \\ \hline \end{array}$	2. $\begin{array}{r} 422 \\ \times 78 \\ \hline \end{array}$	3. $\begin{array}{r} 731 \\ \times 46 \\ \hline \end{array}$	4. $\begin{array}{r} 250 \\ \times 35 \\ \hline \end{array}$	5. $\begin{array}{r} 584 \\ \times 11 \\ \hline \end{array}$
6. $\begin{array}{r} 806 \\ \times 67 \\ \hline \end{array}$	7. $\begin{array}{r} 399 \\ \times 52 \\ \hline \end{array}$	8. $\begin{array}{r} 647 \\ \times 47 \\ \hline \end{array}$	9. $\begin{array}{r} 919 \\ \times 96 \\ \hline \end{array}$	10. $\begin{array}{r} 723 \\ \times 84 \\ \hline \end{array}$
11. $\begin{array}{r} 535 \\ \times 60 \\ \hline \end{array}$	12. $\begin{array}{r} 281 \\ \times 72 \\ \hline \end{array}$	13. $\begin{array}{r} 143 \\ \times 59 \\ \hline \end{array}$	14. $\begin{array}{r} 428 \\ \times 33 \\ \hline \end{array}$	15. $\begin{array}{r} 867 \\ \times 24 \\ \hline \end{array}$

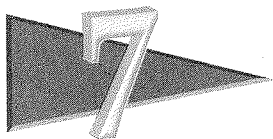
Using Math

► Mrs. Troy orders milk for the school cafeteria. She needs 284 cartons for each day. How many cartons of milk should she order for 85 days?

She should order _____ cartons of milk.

Work here.





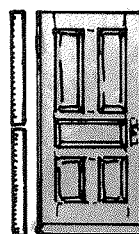
Centimeters and Meters

You learned that length and height can be measured in inches and feet. Now you will learn another way to measure length and height. In this lesson you will learn about **metric** measurement. **Centimeters** are used to measure short things. **Meters** are used to measure longer things.

A crayon is about 7 centimeters long.



A door is about 2 meters tall.



$$100 \text{ centimeters} = 1 \text{ meter}$$

Guided Practice

► Ring the unit of measure you would use.

1. the length of a tennis court centimeter meter	2. the length of a sheet of paper centimeter meter
3. the length of a pencil centimeter meter	4. the length of your classroom centimeter meter
5. the height of the ceiling centimeter meter	6. the length of a grasshopper centimeter meter

Practice

➤ Ring the unit of measure you would use.

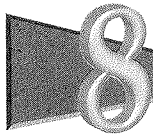
1. the length of a firetruck centimeter meter	2. the length of a lizard centimeter meter
3. the length of a school hallway centimeter meter	4. the height of a sparrow centimeter meter
5. the height of a giraffe centimeter meter	6. the height of a flagpole centimeter meter
7. the length of one finger centimeter meter	8. the length of your shoe centimeter meter
9. the length of a caterpillar centimeter meter	10. the length of a soccer field centimeter meter

Using Math

➤ Lamont's father is a truck driver. His new truck is an 18-wheeler. Lamont wants to tell his friends about the truck. He knows they will want to know how big it is. So Lamont decides to measure the truck's length. But he doesn't know whether to measure the length in centimeters or meters. Which should Lamont use?

Lamont should measure the length of the truck in _____.





Problem Solving

Estimation

Ms. Morales is printing 3 play tickets for every student.

There are 484 students.

About how many tickets will Ms. Morales print?

The word **about** means an exact answer is not needed.
You can estimate the answer.

Round to the nearest hundred.

Step 1 Underline the place you are rounding to. $\underline{4} 8 4$

Step 2 Circle the next digit to the right. $\underline{4} \textcircled{8} 4$

Step 3 If the circled digit is less than 5, round down.

If the circled digit is 5 or more, round up.

$\underline{4}84 \longrightarrow 500$ round up

$\times \underline{3} \longrightarrow \times \underline{3}$ Do not round numbers less than 10.

Ms. Morales will print about 1,500 tickets.

Guided Practice

► Round to the nearest hundred.

Estimate to solve.

1. Bill has 210 customers on his paper route.

He delivers papers 5 days each week.

About how many papers
does Bill deliver each week?

$$\begin{array}{r} 210 \longrightarrow 200 \\ \times 5 \longrightarrow \times 5 \\ \hline \text{about } 1,000 \text{ papers} \end{array}$$

2. Maria runs 4 miles every day.

There are 365 days in a year.

About how many miles
does Maria run in a year?

$$\begin{array}{r} 365 \longrightarrow \\ \times 4 \longrightarrow \times \\ \hline \text{about } \quad \quad \text{miles} \end{array}$$

Practice

► Round to the nearest hundred.

Estimate to solve.

1. The Grand Theater seats 682 people.

All seats were filled for a show
that ran 7 nights.

About how many people saw the show?

$$\begin{array}{r} 682 \longrightarrow \\ \times 7 \longrightarrow \\ \hline \end{array} \quad \begin{array}{r} \times \\ \hline \end{array} \quad \begin{array}{r} \text{about} \quad \text{people} \end{array}$$

2. Circle City Movie House seats 314 people.

All seats were filled for 3 shows
on Saturday. About how many people
saw the show Saturday?

$$\begin{array}{r} 314 \longrightarrow \\ \times 3 \longrightarrow \\ \hline \end{array} \quad \begin{array}{r} \times \\ \hline \end{array} \quad \begin{array}{r} \text{about} \quad \text{people} \end{array}$$

3. 531 people visit the zoo

each day during the summer.

The zoo is open 6 days a week. About how
many people visit the zoo each week?

$$\begin{array}{r} 531 \longrightarrow \\ \times 6 \longrightarrow \\ \hline \end{array} \quad \begin{array}{r} \times \\ \hline \end{array} \quad \begin{array}{r} \text{about} \quad \text{people} \end{array}$$

4. At the fair, 822 people went through
each gate every day. There are 4 gates.

About how many people
went to the fair each day?

$$\begin{array}{r} 822 \longrightarrow \\ \times 4 \longrightarrow \\ \hline \end{array} \quad \begin{array}{r} \times \\ \hline \end{array} \quad \begin{array}{r} \text{about} \quad \text{people} \end{array}$$

5. Erika sleeps 8 hours every night.

There are 365 days in one year.

About how many hours
does Erika sleep in one year?

$$\begin{array}{r} 365 \longrightarrow \\ \times 8 \longrightarrow \\ \hline \end{array} \quad \begin{array}{r} \times \\ \hline \end{array} \quad \begin{array}{r} \text{about} \quad \text{hours} \end{array}$$

6. Lorenzo does 101 sit-ups every day.

There are 7 days in one week. About how
many sit-ups does Lorenzo do in one week?

$$\begin{array}{r} 101 \longrightarrow \\ \times 7 \longrightarrow \\ \hline \end{array} \quad \begin{array}{r} \times \\ \hline \end{array} \quad \begin{array}{r} \text{about} \quad \text{sit-ups} \end{array}$$

► Multiply.

pages 24–25 1. $\begin{array}{r} 17 \\ \times 5 \\ \hline \end{array}$	2. $\begin{array}{r} 36 \\ \times 8 \\ \hline \end{array}$	3. $\begin{array}{r} 72 \\ \times 6 \\ \hline \end{array}$	4. $\begin{array}{r} 45 \\ \times 7 \\ \hline \end{array}$	5. $\begin{array}{r} 64 \\ \times 5 \\ \hline \end{array}$
pages 26–27 6. $\begin{array}{r} 27 \\ \times 10 \\ \hline \end{array}$	7. $\begin{array}{r} 56 \\ \times 20 \\ \hline \end{array}$	8. $\begin{array}{r} 73 \\ \times 30 \\ \hline \end{array}$	9. $\begin{array}{r} 41 \\ \times 40 \\ \hline \end{array}$	10. $\begin{array}{r} 53 \\ \times 50 \\ \hline \end{array}$
pages 28–29 11. $\begin{array}{r} 42 \\ \times 12 \\ \hline \end{array}$	12. $\begin{array}{r} 81 \\ \times 16 \\ \hline \end{array}$	13. $\begin{array}{r} 57 \\ \times 14 \\ \hline \end{array}$	14. $\begin{array}{r} 69 \\ \times 18 \\ \hline \end{array}$	15. $\begin{array}{r} 37 \\ \times 13 \\ \hline \end{array}$
pages 30–31 16. $\begin{array}{r} 28 \\ \times 22 \\ \hline \end{array}$	17. $\begin{array}{r} 76 \\ \times 31 \\ \hline \end{array}$	18. $\begin{array}{r} 84 \\ \times 62 \\ \hline \end{array}$	19. $\begin{array}{r} 59 \\ \times 43 \\ \hline \end{array}$	20. $\begin{array}{r} 74 \\ \times 51 \\ \hline \end{array}$

CHAPTER 2

Review

► Multiply.

<p>pages 32-33</p> <p>21. $\begin{array}{r} 313 \\ \times 11 \\ \hline \end{array}$</p>	<p>22. $\begin{array}{r} 472 \\ \times 13 \\ \hline \end{array}$</p>	<p>23. $\begin{array}{r} 262 \\ \times 12 \\ \hline \end{array}$</p>	<p>24. $\begin{array}{r} 189 \\ \times 15 \\ \hline \end{array}$</p>	<p>25. $\begin{array}{r} 332 \\ \times 14 \\ \hline \end{array}$</p>
<p>pages 34-35</p> <p>26. $\begin{array}{r} 333 \\ \times 24 \\ \hline \end{array}$</p>	<p>27. $\begin{array}{r} 419 \\ \times 42 \\ \hline \end{array}$</p>	<p>28. $\begin{array}{r} 515 \\ \times 63 \\ \hline \end{array}$</p>	<p>29. $\begin{array}{r} 729 \\ \times 38 \\ \hline \end{array}$</p>	<p>30. $\begin{array}{r} 547 \\ \times 26 \\ \hline \end{array}$</p>

► Ring the unit of measure you would use. pages 36-37

<p>31. the length of a rubber band</p> <p>centimeter meter</p>	<p>32. the height of a ladder</p> <p>centimeter meter</p>
<p>33. the length of a racetrack</p> <p>centimeter meter</p>	<p>34. the length of a shoestring</p> <p>centimeter meter</p>
<p>35. the length of a worm</p> <p>centimeter meter</p>	<p>36. the length of a volleyball net</p> <p>centimeter meter</p>

► Round to the nearest hundred.

Estimate to solve. pages 38–39

37. Gail sold 127 drinks at the concession stand each hour. She worked 3 hours. About how many drinks did Gail sell?

$$\begin{array}{r} 127 \longrightarrow \\ \times 3 \longrightarrow \times \\ \hline \end{array}$$

about _____ drinks

38. Alice flew 723 miles to visit her grandmother. Alice made this trip 4 times last year. About how many miles did Alice fly last year?

$$\begin{array}{r} 723 \longrightarrow \\ \times 4 \longrightarrow \times \\ \hline \end{array}$$

about _____ miles

39. A music book has 235 pages. Bill makes 6 copies of the book. About how many pages did Bill copy?

$$\begin{array}{r} 235 \longrightarrow \\ \times 6 \longrightarrow \times \\ \hline \end{array}$$

about _____ pages

40. Chan's class needs 468 bows to decorate the auditorium. Each bow takes 3 yards of ribbon. About how much ribbon in all does Chan need?

$$\begin{array}{r} 468 \longrightarrow \\ \times 3 \longrightarrow \times \\ \hline \end{array}$$

about _____ yards

41. There are 511 cookies in a case of cookies. Mrs. Cruz ordered 8 cases of cookies. About how many cookies did Mrs. Cruz order?

$$\begin{array}{r} 511 \longrightarrow \\ \times 8 \longrightarrow \times \\ \hline \end{array}$$

about _____ cookies

42. There are 324 seats in the movie theater. The theater shows a movie 5 times in one day. About how many people can see the movie in one day?

$$\begin{array}{r} 324 \longrightarrow \\ \times 5 \longrightarrow \times \\ \hline \end{array}$$

about _____ people

CHAPTER 2

Test

► Multiply.

1. $\begin{array}{r} 43 \\ \times 7 \\ \hline \end{array}$	2. $\begin{array}{r} 68 \\ \times 5 \\ \hline \end{array}$	3. $\begin{array}{r} 36 \\ \times 10 \\ \hline \end{array}$	4. $\begin{array}{r} 82 \\ \times 40 \\ \hline \end{array}$	5. $\begin{array}{r} 15 \\ \times 50 \\ \hline \end{array}$
6. $\begin{array}{r} 46 \\ \times 13 \\ \hline \end{array}$	7. $\begin{array}{r} 79 \\ \times 18 \\ \hline \end{array}$	8. $\begin{array}{r} 44 \\ \times 16 \\ \hline \end{array}$	9. $\begin{array}{r} 24 \\ \times 23 \\ \hline \end{array}$	10. $\begin{array}{r} 63 \\ \times 35 \\ \hline \end{array}$
11. $\begin{array}{r} 245 \\ \times 12 \\ \hline \end{array}$	12. $\begin{array}{r} 463 \\ \times 15 \\ \hline \end{array}$	13. $\begin{array}{r} 271 \\ \times 25 \\ \hline \end{array}$	14. $\begin{array}{r} 567 \\ \times 48 \\ \hline \end{array}$	15. $\begin{array}{r} 102 \\ \times 58 \\ \hline \end{array}$

► Ring the unit of measure you would use.

16. the height of a telephone pole centimeter meter	17. the height of a blade of grass centimeter meter
---	---


Test

Estimate to solve.


- 241 \longrightarrow _____
 $\times 3 \longrightarrow \times$

 _____ about _____ nurses

- 563 \longrightarrow _____
 $\times 8 \longrightarrow \times$ _____
 _____ about _____ people

- 387 \longrightarrow
- $\times 5 \longrightarrow \times$
-
-  about pencils

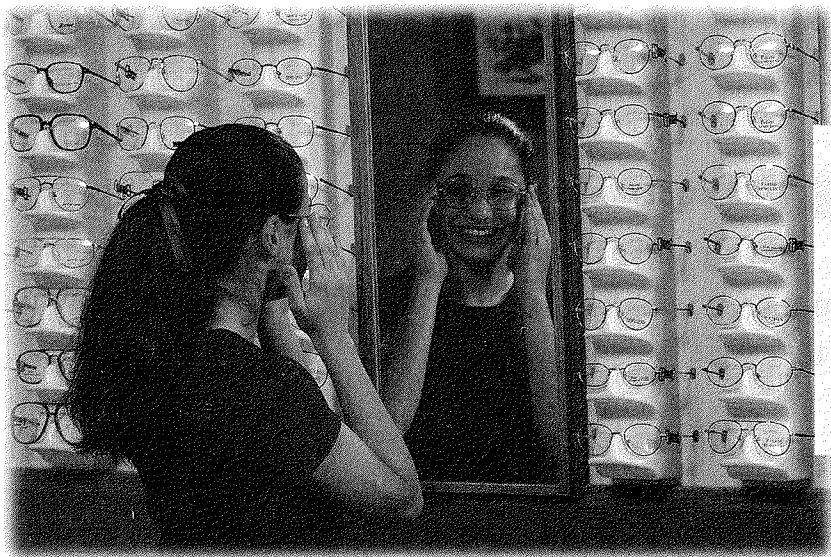
- 659 \longrightarrow
 $\times 3 \longrightarrow \times$
 about _____ points

- 217 \longrightarrow
- $\times 7 \longrightarrow \times$
-
-  about people

- 150 \longrightarrow
- $\times 2 \longrightarrow \times$
-
- about yards

3

Dividing with 1- and 2-Digit Divisors

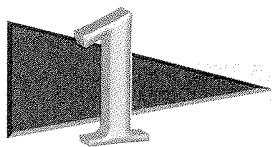


The Perfect Eye Center has 120 different frames from which to choose. If they are displayed in racks of 8 frames each, how many racks are there?

Solve

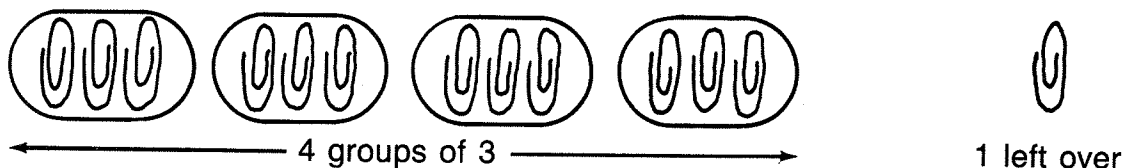


► Write a problem about rows in a display or collection.



Division with Remainders

When you divide a group of 13 paper clips into groups of 3, there is 1 paper clip left over. The amount left over is called the **remainder**.



<p>Step 1 Divide 13 by 3.</p> $\begin{array}{r} 3 \overline{)13} \\ 4 \times 3 = 12 \\ \hline 1 \end{array}$ <p>There are 4 groups of 3 in 13.</p> $\begin{array}{r} 4 \\ 3 \overline{)13} \\ \hline 12 \\ \hline 1 \end{array}$	<p>Step 2 Multiply 4 by 3.</p> $4 \times 3 = 12$ <p>Write the 12 under the 13.</p> $\begin{array}{r} 4 \\ 3 \overline{)13} \\ \hline 12 \\ \hline 1 \end{array}$	<p>Step 3 Subtract 12 from 13.</p> $13 - 12 = 1$ $\begin{array}{r} 4 \\ 3 \overline{)13} \\ \hline -12 \\ \hline 1 \end{array}$
---	---	--

The remainder is written with the quotient.

The **divisor** is 3. The **dividend** is 13.

$$\begin{array}{r} 4 \text{ R}1 \\ 3 \overline{)13} \\ \hline -12 \\ \hline 1 \end{array} \quad \text{or} \quad 13 \div 3 = 4 \text{ R}1$$

Guided Practice

► Divide.

1. $\begin{array}{r} 5 \text{ R}1 \\ 4 \overline{)21} \\ \hline -20 \\ \hline 1 \end{array}$	2. $3 \overline{)19}$	3. $2 \overline{)13}$	4. $6 \overline{)55}$
--	-----------------------	-----------------------	-----------------------

Practice

► Divide.

1. $8\overline{)33}$	2. $2\overline{)15}$	3. $9\overline{)55}$	4. $6\overline{)25}$
5. $8\overline{)49}$	6. $3\overline{)28}$	7. $6\overline{)13}$	8. $2\overline{)17}$
9. $5\overline{)26}$	10. $4\overline{)29}$	11. $9\overline{)46}$	12. $7\overline{)43}$

Using Math

- John wants to give away his 50 baseball cards to 7 friends.
He wants to give each friend the same number of cards.
How many cards should he give to each friend?

Work here.

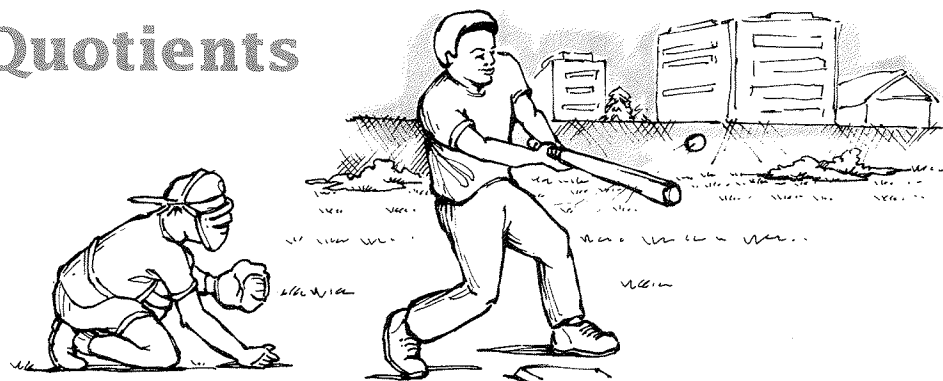
John should give _____ cards to each friend.

How many cards will he have left?

He will have _____ card left.

2

2-Digit Quotients



Divide 83 by 8. $8 \overline{)83}$

Step 1 Divide the tens.

Divide $8 \div 8$

Write 1 in the tens' place.

Multiply 1×8

Subtract $8 - 8$

$$\begin{array}{r} 1 \\ 8 \overline{)83} \\ -8 \\ \hline 0 \end{array}$$

Step 2 Divide the ones.

Bring down the 3 ones.

Divide $3 \div 8$

Can you divide 3 by 8? No.

Write 0 in the ones' place.

Multiply 0×8

Subtract $3 - 0$

Write the remainder
with the quotient.

$$\begin{array}{r} 10 \text{ R}3 \\ 8 \overline{)83} \\ -8 \\ \hline 03 \\ -0 \\ \hline 3 \end{array}$$

Guided Practice

► Divide.

1. $\begin{array}{r} 20 \text{ R}1 \\ 3 \overline{)61} \\ -6 \\ \hline 01 \\ -0 \\ \hline 1 \end{array}$	2. $4 \overline{)44}$	3. $9 \overline{)95}$	4. $4 \overline{)89}$
--	-----------------------	-----------------------	-----------------------

Practice

► Divide.

1. $4\overline{)41}$	2. $6\overline{)69}$	3. $5\overline{)52}$	4. $3\overline{)66}$
5. $7\overline{)79}$	6. $9\overline{)96}$	7. $3\overline{)68}$	8. $2\overline{)24}$
9. $8\overline{)87}$	10. $2\overline{)85}$	11. $4\overline{)83}$	12. $2\overline{)69}$

Using Math

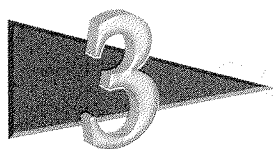
► Sam had an accident. His baseball broke a window. It will cost \$68 to fix. If he makes one payment a month for 6 months, how much will each payment be?

Work here.

Each payment will be _____.

How much will he have left to pay?

He will have _____ left to pay.



2-Digit Quotients

Divide 77 by 3. $3\overline{)77}$

Step 1 Divide the tens.

Divide $7 \div 3$

Multiply 2×3

Subtract $7 - 6$

Compare Is 1 less than 3? Yes.

Go on to Step 2.

$$\begin{array}{r} 2 \\ 3\overline{)77} \\ -6 \\ \hline 1 \end{array}$$

Step 2 Divide the ones.

Bring down the 7.

Divide $17 \div 3$

Multiply 5×3

Subtract $17 - 15$

Write the remainder
with the quotient.

$$\begin{array}{r} 25 \text{ R}2 \\ 3\overline{)77} \\ -6 \\ \hline 17 \\ -15 \\ \hline 2 \end{array}$$

Guided Practice

► Divide.

1. $\begin{array}{r} 23 \text{ R}1 \\ 4\overline{)93} \\ -8 \\ \hline 13 \\ -12 \\ \hline 1 \end{array}$	2. $6\overline{)94}$	3. $2\overline{)78}$	4. $5\overline{)62}$
5. $8\overline{)99}$	6. $4\overline{)56}$	7. $7\overline{)85}$	8. $3\overline{)78}$

Practice

► Divide.

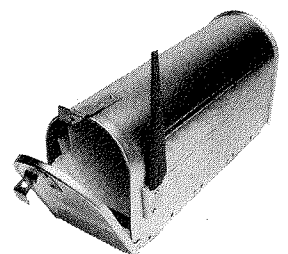
1. $4\overline{)62}$	2. $3\overline{)89}$	3. $5\overline{)88}$	4. $7\overline{)98}$
5. $8\overline{)99}$	6. $6\overline{)95}$	7. $5\overline{)83}$	8. $2\overline{)38}$
9. $6\overline{)79}$	10. $4\overline{)98}$	11. $3\overline{)80}$	12. $2\overline{)91}$

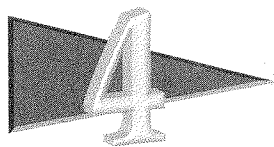
Using Math

- Lynn bought 2 stamps. She paid the clerk with 69¢. She received 1¢ change.
How much did each stamp cost?

Each stamp cost _____ ¢.

Work here.





2-Digit Quotients

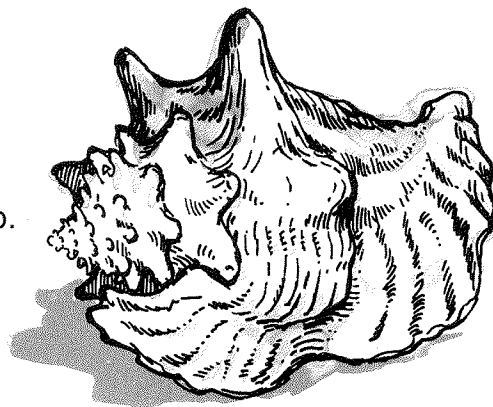
2-Digit Quotients

Divide 179 by 3. $3 \overline{)179}$ Can you divide 1 by 3? No.

Think $179 = 1 \text{ hundred } 7 \text{ tens } 9 \text{ ones}$

$1 \text{ hundred } 7 \text{ tens} = 17 \text{ tens}$

Can you divide 17 tens by 3? Yes.



Step 1 Divide the tens.

Divide 17 tens by 3.

Remember to write the
5 over the 7. This is
the tens' place.

Multiply 5×3

Subtract $17 - 15$

Compare Is 2 less than 3? Yes.

Go on to Step 2.

$$\begin{array}{r} 5 \\ 3 \overline{)179} \\ -15 \\ \hline 2 \end{array}$$

Step 2 Divide the ones.

Bring down the 9.

Divide $29 \div 3$

Multiply 9×3

Subtract $29 - 27$

Write the remainder
with the quotient.

$$\begin{array}{r} 59 \text{ R}2 \\ 3 \overline{)179} \\ -15 \downarrow \\ \hline 29 \\ -27 \\ \hline 2 \end{array}$$

Guided Practice

► Divide.

1.
$$\begin{array}{r} 55 \text{ R}3 \\ 7 \overline{)388} \\ -35 \\ \hline 38 \\ -35 \\ \hline 3 \end{array}$$

2.
$$6 \overline{)410}$$

3.
$$9 \overline{)567}$$

4.
$$8 \overline{)478}$$

Practice

➤ Divide.

1. $6 \overline{)212}$	2. $3 \overline{)128}$	3. $8 \overline{)238}$	4. $7 \overline{)472}$
5. $9 \overline{)435}$	6. $2 \overline{)167}$	7. $6 \overline{)399}$	8. $5 \overline{)395}$
9. $9 \overline{)579}$	10. $8 \overline{)655}$	11. $7 \overline{)395}$	12. $4 \overline{)339}$

Using Math

➤ Hank has 135 shells. He divided them evenly and put them in 3 jars. How many shells did he put in each jar?

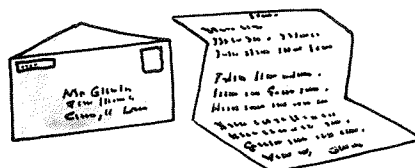
He put _____ shells in each jar.

Work here.





Dividing by Tens



Divide 138 by 20.

$$20 \overline{)138}$$

Can you divide 1 by 20? No.

Can you divide 13 by 20? No.

Can you divide 138 by 20?

Think $138 = 13 \text{ tens } 8 \text{ ones}$

$$20 = 2 \text{ tens}$$

$$13 \div 2$$

Now divide.

6 R18

Divide $138 \div 20$

$$20 \overline{)138}$$

Write the 6 over the 8.

$$\begin{array}{r} 6 \\ 20 \overline{)138} \\ -120 \\ \hline \end{array}$$

This is the ones' place.

$$18$$

Multiply 6×20

Subtract $138 - 120$

Compare Is 18 less than 20? Yes.

Write the remainder with the quotient.

Guided Practice

► Divide.

1.

$$\begin{array}{r} 3 \text{ R}6 \\ 30 \overline{)96} \\ -90 \\ \hline 6 \end{array}$$

2.

$$40 \overline{)80}$$

3.

$$70 \overline{)568}$$

4.

$$50 \overline{)277}$$

5.

$$20 \overline{)42}$$

6.

$$10 \overline{)35}$$

7.

$$80 \overline{)735}$$

8.

$$60 \overline{)240}$$

Practice

► Divide.

1. $10\overline{)90}$	2. $40\overline{)85}$	3. $30\overline{)63}$	4. $20\overline{)88}$
5. $50\overline{)59}$	6. $10\overline{)23}$	7. $60\overline{)245}$	8. $70\overline{)560}$
9. $30\overline{)251}$	10. $80\overline{)415}$	11. $90\overline{)630}$	12. $80\overline{)329}$

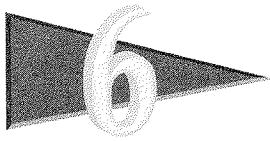
Problem Solving

► Round to the nearest hundred.

Estimate to solve.

The bus company has 257 buses. Each bus makes 8 trips a day. About how many trips in all do the buses make each day?

$$\begin{array}{rcl}
 257 & \longrightarrow & \\
 \times 8 & \longrightarrow & \times \\
 \hline
 \blacksquare & \text{about} & \text{trips}
 \end{array}$$



2-Digit Divisors

To divide by a 2-digit divisor, first **round the divisor up or down to the nearest ten**. This helps you find the quotient more easily.

Divide 841 by 18. $18 \overline{)841}$

To divide 841 by 18, first round 18 up to 20.

Can you divide 8 by 20? No.

Can you divide 84 by 20? Yes.

Now divide.

<p>Step 1 Divide the tens.</p> <div style="float: right; text-align: right;"> $\begin{array}{r} 4 \\ 18 \overline{)841} \\ - 72 \\ \hline 12 \end{array}$ </div> <p>Divide $84 \div 18$</p> <p>Think $84 \div 20$</p> <p>Try 4.</p> <p>Write the 4 over the 4.</p> <p>Multiply 4×18</p> <p>Subtract $84 - 72$</p> <p>Compare Is 12 less than 18? Yes.</p> <p>Go on to Step 2.</p>	<p>Step 2 Divide the ones.</p> <div style="float: right; text-align: right;"> $\begin{array}{r} 46 \text{ R}13 \\ 18 \overline{)841} \\ - 72 \\ \hline 121 \\ - 108 \\ \hline 13 \end{array}$ </div> <p>Bring down the 1.</p> <p>Divide $121 \div 18$</p> <p>Think $121 \div 20$</p> <p>Try 6.</p> <p>Multiply 6×18</p> <p>Subtract $121 - 108$</p> <p>Compare Is 13 less than 18? Yes.</p> <p>Write the remainder with the quotient.</p>
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Guided Practice

Divide.

<p>1.</p> $\begin{array}{r} 2 \text{ R}3 \\ 31 \overline{)65} \\ - 62 \\ \hline 3 \end{array}$	<p>2.</p> $29 \overline{)97}$	<p>3.</p> $28 \overline{)716}$	<p>4.</p> $52 \overline{)785}$
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Practice

► Divide.

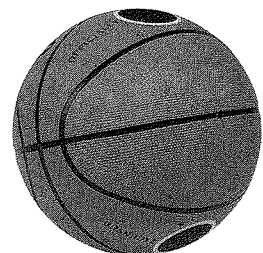
1. $21 \overline{)86}$	2. $42 \overline{)91}$	3. $27 \overline{)63}$	4. $23 \overline{)92}$
5. $19 \overline{)75}$	6. $36 \overline{)85}$	7. $72 \overline{)792}$	8. $23 \overline{)969}$
9. $32 \overline{)425}$	10. $42 \overline{)891}$	11. $17 \overline{)421}$	12. $19 \overline{)653}$

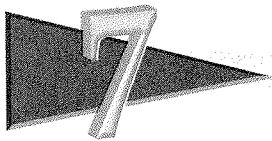
Using Math

► Union Hill School's basketball team is in the play-offs. There are 496 people who want to go to the game. A bus holds 44 people. How many buses are needed to take all the people to the game?

_____ buses are needed.

Work here.





Cups, Pints, and Quarts

Capacity tells how much a container holds. Liquid capacity is measured using **cups**, **pints**, or **quarts**.



























1 cup

1 pint  =   2 cups

1 quart  =   2 pints =     4 cups

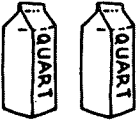

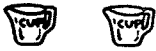
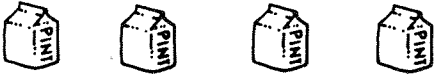

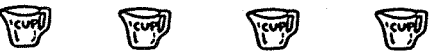




Guided Practice

► Mark an X on the containers that equal the first one in the row.

1. 	   
2. 	    
3.    	   
4. 	   

Practice

► Mark an X on the containers that equal the first one in the row.

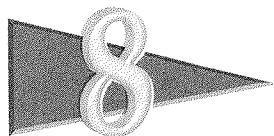
1. 	
2. 	
3. 	
4. 	
5. 	

Using Math

► Ernie wants to cook some noodles. The directions say to boil the noodles in 1 quart of water. Ernie has a big pan and a 1-cup measure. How many times does he need to fill the cup to equal 1 quart?

He needs to fill the cup _____ times.





Problem Solving

Two-Step Problems

Andy had 24 baseball cards. He got 32 more cards.

Then Andy gave 6 baseball cards to a friend.

How many baseball cards did Andy have left?

This is a two-step problem.

You will use more than one operation to solve it.

Step 1 Read the problem to find what you need first.

Solve for that part.

Andy had 24 baseball cards.

He got 32 more cards.

$$\begin{array}{r} 24 \\ + 32 \\ \hline 56 \end{array} \text{ baseball cards}$$

Step 2 Read the problem to find the next fact.

Use the answer from Step 1 to solve.

Then Andy gave 6 baseball
cards to a friend.

$$\begin{array}{r} 56 \\ - 6 \\ \hline 50 \end{array} \text{ baseball cards}$$

Guided Practice

► Use two steps to solve.

1. Luke had 65 tapes. He got 12 more tapes. Then he gave away 3 tapes. How many tapes did Luke have left?

Step 1	Step 2
$\begin{array}{r} 65 \\ + 12 \\ \hline 77 \end{array}$	$\begin{array}{r} 77 \\ - 3 \\ \hline 74 \end{array} \text{ tapes}$
$\underline{\hspace{2cm}}$	$\underline{\hspace{2cm}} \text{ comic books}$

2. Nichole had 28 comic books. She gave 11 comic books to Fran. Then Nichole got 14 new comic books. How many comic books does Nichole have now?

Practice

► Use two steps to solve.

	Step 1	Step 2
1. Ms. Garza baked 36 cookies. Her son ate 6 of the cookies. Then Ms. Garza baked 48 more cookies. How many cookies does she have now?	_____	_____ cookies
2. Su had 64 cans of apple juice and 32 cans of grape juice. She sold 18 cans of juice. How many cans of juice does Su have left?	_____	_____ cans of juice
3. Rob had 19 video game tokens. He got 25 more tokens. Then Rob used 10 tokens. How many video game tokens does Rob have left?	_____	_____ tokens
4. Jesse flew on a jet that had 16 seats in first class and 212 seats in coach class. There were 197 passengers seated in the plane. How many empty seats were there?	_____	_____ empty seats
5. There are 23 students in Mr. Wong's class and 20 students in Mr. Shimizu's class. The classes went on a field trip together, but 4 students did not go. How many students went on the trip?	_____	_____ students

▶ Divide.

pages 46–47

1.

$$5 \overline{)21}$$

2.

$$6 \overline{)55}$$

3.

$$9 \overline{)64}$$

4.

$$8 \overline{)41}$$

pages 48–49

5.

$$4 \overline{)85}$$

6.

$$3 \overline{)95}$$

7.

$$8 \overline{)84}$$

8.

$$2 \overline{)47}$$

pages 50–51

9.

$$8 \overline{)97}$$

10.

$$2 \overline{)93}$$

11.

$$6 \overline{)84}$$

12.

$$3 \overline{)88}$$

pages 52–53

13.

$$3 \overline{)137}$$

14.

$$4 \overline{)168}$$

15.

$$5 \overline{)339}$$













16.

$$7 \overline{)614}$$

▶ Divide.

pages 54–55 17. $20 \overline{)80}$	18. $30 \overline{)92}$	19. $40 \overline{)362}$	20. $70 \overline{)211}$
pages 56–57 21. $23 \overline{)96}$	22. $18 \overline{)63}$	23. $12 \overline{)36}$	24. $31 \overline{)78}$
25. $31 \overline{)779}$	26. $42 \overline{)548}$	27. $71 \overline{)852}$	28. $17 \overline{)423}$

▶ Mark an X on the containers that equal the first one in the row. pages 58–59

29.  	   
30.  	   

CHAPTER 3 Review

► Use two steps to solve.
pages 60–61

31. Isaac caught 18 fish.

He threw 5 fish back into the water.

He caught 11 more fish. How many fish did he have then?

Step 1

Step 2

_____ fish

32. There were 32 students on a playground.

28 more students come out to the playground. Later, 8 students left. How many students were on the playground then?

_____ students

33. There were 176 cars in a parking lot.

48 cars left the parking lot at 2:00.

61 more cars left the parking lot at 5:00. How many cars were still in the parking lot?

_____ cars

34. Jill put 78 oranges in a basket.

She put 69 oranges in another basket. She put 83 oranges in a third basket. How many oranges in all does Jill have?

_____ oranges

35. Jay has 211 rocks in his rock collection.

Beth has 138 rocks in her rock collection. Beth

got 27 more rocks. How many rocks do they have altogether?

_____ rocks






CHAPTER 3

Test

➤ Divide.

1. $2 \overline{)15}$	2. $6 \overline{)25}$	3. $3 \overline{)61}$	4. $2 \overline{)82}$
5. $2 \overline{)73}$	6. $6 \overline{)78}$	7. $4 \overline{)209}$	8. $5 \overline{)448}$
9. $20 \overline{)62}$	10. $40 \overline{)321}$	11. $28 \overline{)92}$	12. $62 \overline{)870}$

➤ Mark an X on the containers that equal the first one in the row.

13. 	   
--	---

CHAPTER 3

Test

► Use two steps to solve.

	Step 1	Step 2
14. There were 182 people seated in a train. 74 more people got on and sat down. The train has 350 seats. How many seats are empty?	_____	_____ seats
15. There are 84 people in the grocery store. 18 people leave the store. 22 more people leave the store. How many people are left in the store?	_____	_____ people
16. Janet baked 234 muffins. She sent 120 muffins to the school bake sale. Her family ate 17 muffins. How many muffins does Janet have left?	_____	_____ muffins
17. Bernie and Hillary worked on a puzzle that had 500 pieces. Bernie put 154 pieces in place. Hillary put 96 pieces in place. How many pieces were not in place then?	_____	_____ pieces
18. On Friday morning, a car dealer had 39 cars on the lot. She sold 5 cars. She received a shipment of 12 new cars. How many cars were on the lot then?	_____	_____ cars

CHAPTER 1

Cumulative Review

► Write the value of each underlined digit. pages 2–3

1. 3 3,4 9 5 _____

2. 9 3 8, 7 3 1 _____

► Add. pages 4–7

3. $\begin{array}{r} 27 \\ + 15 \\ \hline \end{array}$	4. $\begin{array}{r} 64 \\ + 29 \\ \hline \end{array}$	5. $\begin{array}{r} 183 \\ + 485 \\ \hline \end{array}$	6. $\begin{array}{r} 419 \\ + 616 \\ \hline \end{array}$
7. $\begin{array}{r} 3,509 \\ + 2,364 \\ \hline \end{array}$	8. $\begin{array}{r} 8,536 \\ + 3,281 \\ \hline \end{array}$	9. $\begin{array}{r} 24,916 \\ + 32,827 \\ \hline \end{array}$	10. $\begin{array}{r} 14,361 \\ + 62,509 \\ \hline \end{array}$

► Subtract. pages 8–11

11. $\begin{array}{r} 64 \\ - 18 \\ \hline \end{array}$	12. $\begin{array}{r} 91 \\ - 36 \\ \hline \end{array}$	13. $\begin{array}{r} 875 \\ - 486 \\ \hline \end{array}$	14. $\begin{array}{r} 942 \\ - 367 \\ \hline \end{array}$
15. $\begin{array}{r} 8,006 \\ - 4,725 \\ \hline \end{array}$	16. $\begin{array}{r} 400 \\ - 281 \\ \hline \end{array}$	17. $\begin{array}{r} 40,006 \\ - 35,321 \\ \hline \end{array}$	18. $\begin{array}{r} 87,000 \\ - 7,946 \\ \hline \end{array}$

► Round each number to the nearest hundred. pages 12–13

19. 109 _____

20. 37,531 _____

► Ring the unit of measure you would use. pages 14–15

21. the length of a truck inch foot	22. the height of a puppy inch foot
---	---

CHAPTER 2

Cumulative Review

► Multiply.

<p>pages 24–27</p> <p>1. $\begin{array}{r} 16 \\ \times 4 \\ \hline \end{array}$</p>	<p>2. $\begin{array}{r} 38 \\ \times 6 \\ \hline \end{array}$</p>	<p>3. $\begin{array}{r} 85 \\ \times 4 \\ \hline \end{array}$</p>	<p>4. $\begin{array}{r} 28 \\ \times 10 \\ \hline \end{array}$</p>	<p>5. $\begin{array}{r} 65 \\ \times 10 \\ \hline \end{array}$</p>
<p>pages 28–31</p> <p>6. $\begin{array}{r} 53 \\ \times 13 \\ \hline \end{array}$</p>	<p>7. $\begin{array}{r} 72 \\ \times 18 \\ \hline \end{array}$</p>	<p>8. $\begin{array}{r} 63 \\ \times 12 \\ \hline \end{array}$</p>	<p>9. $\begin{array}{r} 29 \\ \times 24 \\ \hline \end{array}$</p>	<p>10. $\begin{array}{r} 82 \\ \times 57 \\ \hline \end{array}$</p>
<p>pages 32–35</p> <p>11. $\begin{array}{r} 326 \\ \times 12 \\ \hline \end{array}$</p>	<p>12. $\begin{array}{r} 568 \\ \times 13 \\ \hline \end{array}$</p>	<p>13. $\begin{array}{r} 271 \\ \times 15 \\ \hline \end{array}$</p>	<p>14. $\begin{array}{r} 242 \\ \times 25 \\ \hline \end{array}$</p>	<p>15. $\begin{array}{r} 658 \\ \times 53 \\ \hline \end{array}$</p>

► Ring the unit of measure you would use. pages 36–37











<p>16. the length of a telephone</p> <p>centimeter meter</p>	<p>17. the height of a bus</p> <p>centimeter meter</p>
---	---

CHAPTER 3 Cumulative Review

► Divide.

<div>pages 46–49</div> <div>1.</div> <div>$4 \overline{)22}$</div>	<div>2.</div> <div>$6 \overline{)57}$</div>	<div>3.</div> <div>$3 \overline{)65}$</div>	<div>4.</div> <div>$2 \overline{)85}$</div>
<div>pages 50–53</div> <div>5.</div> <div>$6 \overline{)79}$</div>	<div>6.</div> <div>$4 \overline{)110}$</div>	<div>7.</div> <div>$3 \overline{)131}$</div>	<div>8.</div> <div>$6 \overline{)514}$</div>
<div>pages 54–57</div> <div>9.</div> <div>$20 \overline{)60}$</div>	<div>10.</div> <div>$40 \overline{)325}$</div>	<div>11.</div> <div>$18 \overline{)75}$</div>	<div>12.</div> <div>$16 \overline{)340}$</div>

► Mark an X on the containers that equal the first one in the row. pages 58–59

<div>13.</div> <div></div>	<div></div> <div></div> <div></div> <div></div>
<div>14.</div> <div></div>	<div></div> <div></div> <div></div> <div></div>

CHAPTERS **1-3** Cumulative Review

► Round to the nearest hundred.

Estimate to solve. pages 16–17

1. There were 470 music students at jazz night. Of those students, 311 were in the chorus. About how many music students were not in the chorus?

$$\begin{array}{r}
 470 \longrightarrow \\
 - 311 \longrightarrow - \\
 \hline
 \end{array}$$

about _____ students

► Round to the nearest hundred.

Estimate to solve. pages 38–39

2. There are 234 windows on each floor of a building. There are 3 floors. About how many windows are in the building?

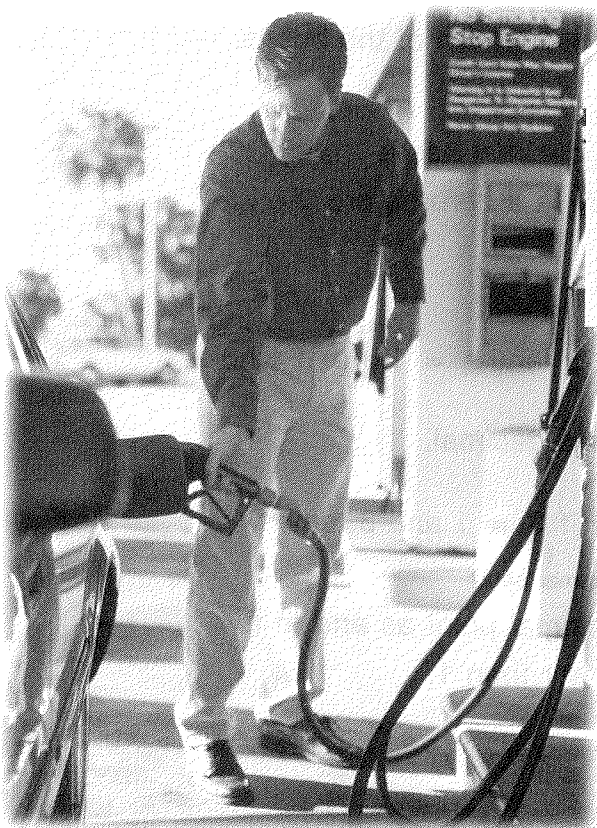
$$\begin{array}{r}
 234 \longrightarrow \\
 \times 3 \longrightarrow \times \\
 \hline
 \end{array}$$

about _____ windows

► Use two steps to solve. pages 60–61

	Step 1	Step 2
3. There were 17 people waiting in line at a restaurant. The hostess sat 8 people. 13 more people got in line. How many people were waiting in line then?	_____	_____ people
4. Carla baked 36 cupcakes. She baked 39 more cupcakes. She sent 45 cupcakes to school with her son. How many cupcakes does Carla have left?	_____	_____ cupcakes
5. Barry drove 15 miles to the grocery store. He drove 9 more miles to the gas station. Then, he drove 7 more miles to the park. How many miles in all did Barry drive?	_____	_____ miles

4

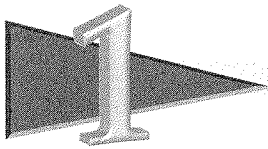
Adding and Subtracting
Decimals

The Lopez family is driving across the country. They stop and buy 18.7 gallons of gasoline. Write this amount of gasoline in tens, ones, and tenths, as the gasoline pump would show.

Solve



► Write a problem to add two decimal numbers.



Tenths



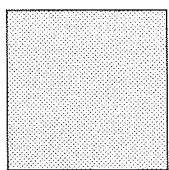
The board is divided into 10 equal parts. Each part is 1 **tenth** of the board. There are 10 tenths in the whole board.

You can name a part of a whole with a **decimal**. A decimal has a **decimal point**. When a decimal is less than 1, there is a zero before the decimal point.

Here is how to write tenths in decimal form.

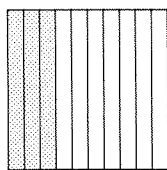
1 tenth = 0.1 5 tenths = 0.5 10 tenths = 1.0 or 1 whole

You can also name wholes and parts of a whole as a decimal.



1

and



0.3

= 1.3

1 and 0.3 = 1.3 = 1 and 3 tenths

↑
decimal point

Read the decimal point as **and** in a number greater than 1.

Guided Practice

► Write each decimal.

1. 2 tenths = 0.2

2. 3 tenths = _____

3. 4 tenths = _____

4. 8 tenths = _____

5. 2 and 9 tenths = _____

6. 12 and 8 tenths = _____

7. 1 and 6 tenths = _____

8. 3 and 4 tenths = _____

Practice

► Write each decimal.

1. 7 tenths = _____

2. 5 tenths = _____

3. 9 tenths = _____

4. 6 tenths = _____

5. 1 tenth = _____

6. 3 tenths = _____

7. 2 tenths = _____

8. 4 tenths = _____

9. 4 and 5 tenths = _____

10. 2 and 3 tenths = _____

11. 17 and 6 tenths = _____

12. 1 and 8 tenths = _____

13. 10 tenths = _____

14. 25 and 4 tenths = _____

15. 9 and 9 tenths = _____

16. 3 and 6 tenths = _____

17. 14 and 1 tenth = _____

18. 8 and 7 tenths = _____

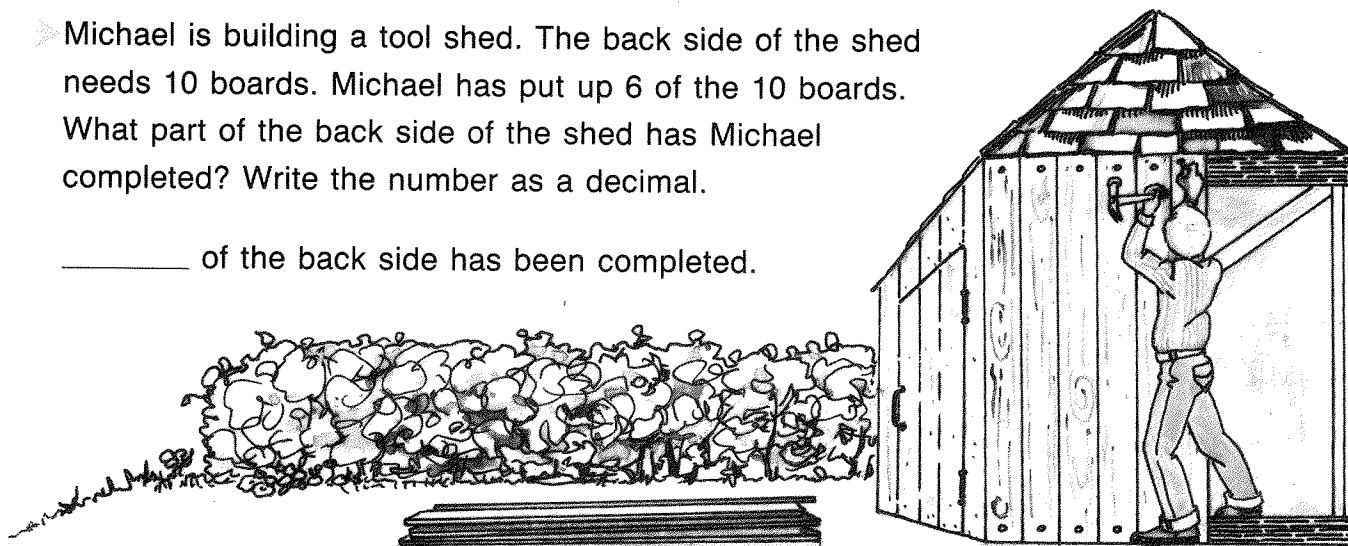
19. 32 and 8 tenths = _____

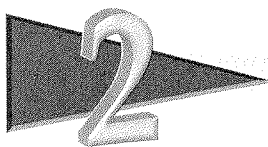
20. 10 and 2 tenths = _____

Using Math

► Michael is building a tool shed. The back side of the shed needs 10 boards. Michael has put up 6 of the 10 boards. What part of the back side of the shed has Michael completed? Write the number as a decimal.

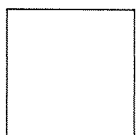
_____ of the back side has been completed.



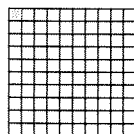


Hundredths

When a whole is divided into 100 equal parts, each part is 1 **hundredth** of the whole.



1



Each part is 1 hundredth.

1 hundredth = 0.01

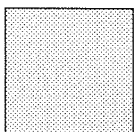
1 whole = 100 hundredths

A place-value chart can help show decimal places.

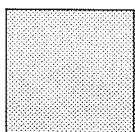
tens	ones		tenths	hundredths
	2	.	3	7

↑
decimal point

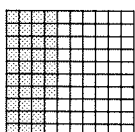
The drawing below shows that 2 and 37 hundredths are shaded.



2



and



0.37

The number in the chart is 2.37.

Read this number as 2 and 37 hundredths.

Guided Practice

► Write each decimal.

1. 3 hundredths = 0.03

2. 5 hundredths = _____

3. 26 hundredths = _____

4. 1 and 52 hundredths = _____

5. 19 and 78 hundredths = _____

6. 72 and 8 hundredths = _____

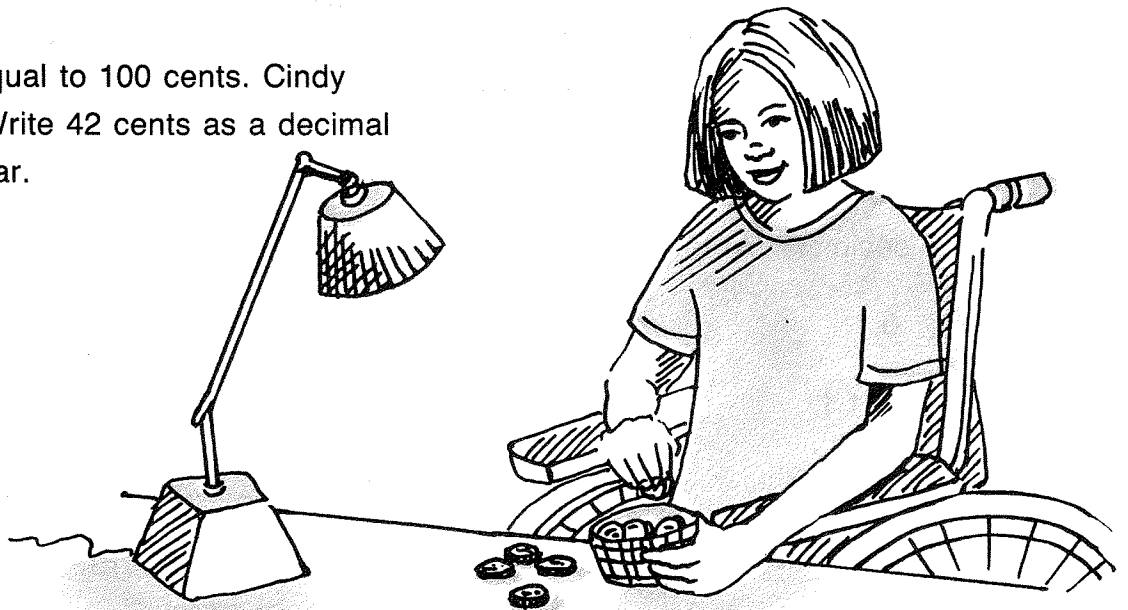
Practice

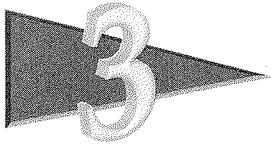
► Write each decimal.

- | | |
|----------------------------------|----------------------------------|
| 1. 6 hundredths = _____ | 2. 8 hundredths = _____ |
| 3. 4 hundredths = _____ | 4. 10 hundredths = _____ |
| 5. 15 hundredths = _____ | 6. 29 hundredths = _____ |
| 7. 63 hundredths = _____ | 8. 88 hundredths = _____ |
| 9. 100 hundredths = _____ | 10. 1 and 1 hundredth = _____ |
| 11. 10 and 15 hundredths = _____ | 12. 22 and 8 hundredths = _____ |
| 13. 56 and 19 hundredths = _____ | 14. 2 and 5 hundredths = _____ |
| 15. 14 and 10 hundredths = _____ | 16. 79 and 22 hundredths = _____ |
| 17. 83 and 7 hundredths = _____ | 18. 5 and 25 hundredths = _____ |
| 19. 33 and 1 hundredth = _____ | 20. 15 and 28 hundredths = _____ |

Using Math

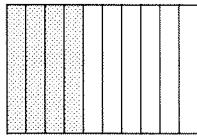
► One dollar is equal to 100 cents. Cindy has 42 cents. Write 42 cents as a decimal part of one dollar.



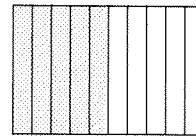


Comparing Decimals

Is the decimal 0.4 greater than or less than 0.5? Count the green parts of each figure to answer the question.



0.4



0.5

0.4 is less than 0.5 because 4 is less than 5.

The symbol for **less than** is $<$. The symbol for **greater than** is $>$.
 $0.4 < 0.5$

Which number is greater, 2.47 or 2.49? Start at the left and compare.

2.47 2.49 **Step 1** Compare the ones. 2 ones and 2 ones are the same, so compare the next digit.

2.47 2.49 **Step 2** Compare the tenths. 4 tenths and 4 tenths are the same, so compare the next digit.

2.47 2.49 **Step 3** Compare the hundredths. 9 hundredths is greater than 7 hundredths, so $2.49 > 2.47$.

Guided Practice

► Compare the decimals. Write $>$ or $<$.

1. $0.3 > 0.1$

2. $0.6 \underline{\hspace{1cm}} 0.9$

3. $0.4 \underline{\hspace{1cm}} 0.7$

4. $21.3 \underline{\hspace{1cm}} 21.1$

5. $2.35 \underline{\hspace{1cm}} 2.39$

6. $7.42 \underline{\hspace{1cm}} 7.40$

7. $12.44 \underline{\hspace{1cm}} 12.41$

8. $26.32 \underline{\hspace{1cm}} 26.38$

9. $74.36 \underline{\hspace{1cm}} 74.22$

10. $0.5 \underline{\hspace{1cm}} 0.2$

11. $3.01 \underline{\hspace{1cm}} 3.08$

12. $87.19 \underline{\hspace{1cm}} 87.91$

Practice

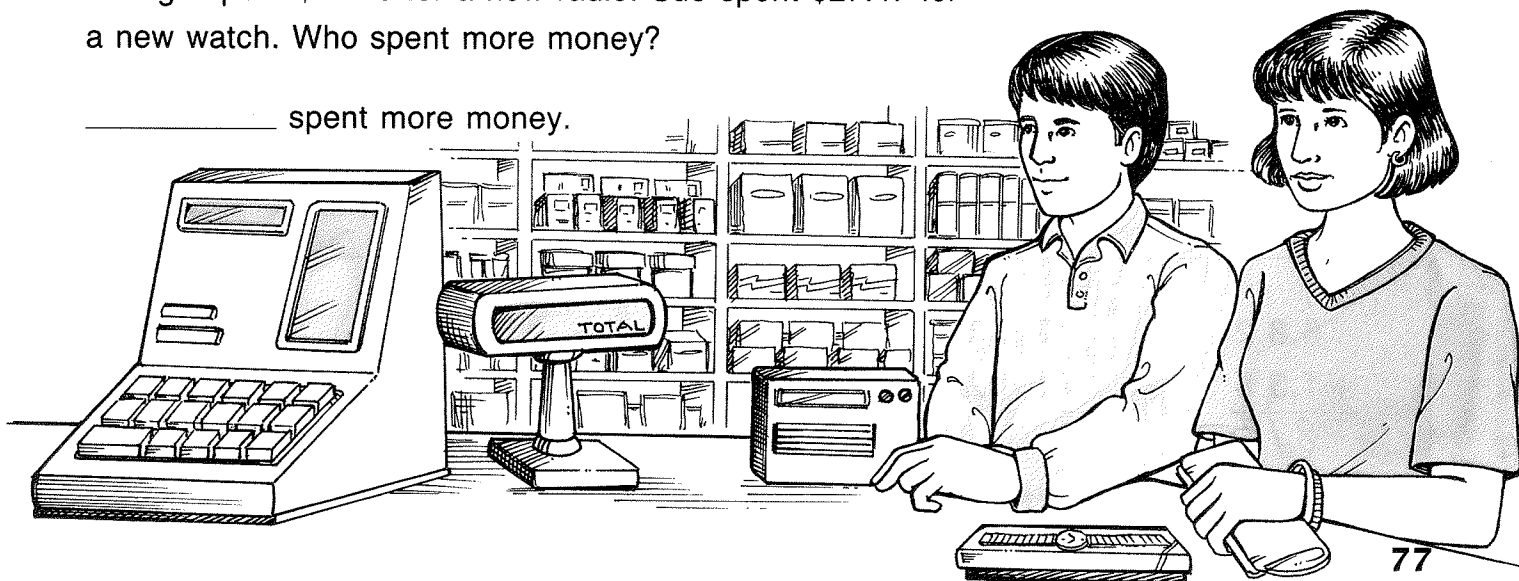
► Compare the decimals. Write $>$ or $<$.

- | | | |
|---------------------------|---------------------------|---------------------------|
| 1. 0.6 _____ 0.2 | 2. 0.3 _____ 0.8 | 3. 0.9 _____ 0.5 |
| 4. 1.4 _____ 1.2 | 5. 2.6 _____ 2.8 | 6. 4.8 _____ 4.9 |
| 7. 6.2 _____ 6.4 | 8. 9.7 _____ 9.3 | 9. 10.2 _____ 10.8 |
| 10. 14.6 _____ 14.9 | 11. 23.2 _____ 23.1 | 12. 41.5 _____ 41.7 |
| 13. 1.63 _____ 1.62 | 14. 3.85 _____ 3.81 | 15. 7.96 _____ 7.98 |
| 16. 25.26 _____ 25.28 | 17. 13.23 _____ 13.31 | 18. 72.86 _____ 72.66 |
| 19. 34.81 _____ 34.82 | 20. 40.09 _____ 40.08 | 21. 10.00 _____ 10.01 |
| 22. 0.8 _____ 0.1 | 23. 5.1 _____ 5.8 | 24. 7.7 _____ 7.6 |
| 25. 0.34 _____ 0.31 | 26. 9.19 _____ 9.11 | 27. 8.44 _____ 8.46 |
| 28. 19.52 _____ 19.56 | 29. 69.16 _____ 69.66 | 30. 55.04 _____ 55.01 |

Using Math

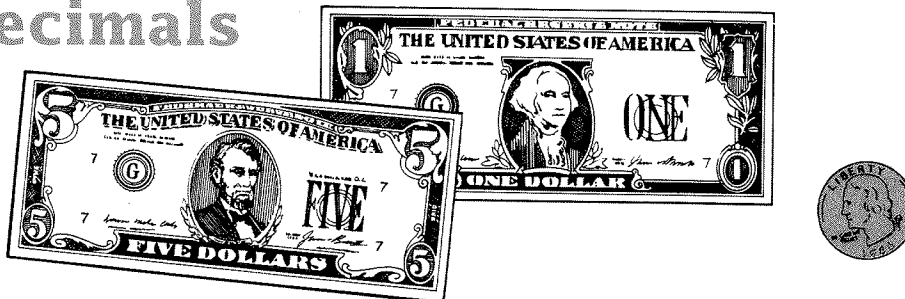
► George spent \$27.43 for a new radio. Sue spent \$27.47 for a new watch. Who spent more money?

_____ spent more money.



4

Adding Decimals



When you add decimals, always line up the decimal points of each number.

Add 1.42 and 2.39.

<p>Step 1 Add the hundredths. Regroup if you need to.</p> $\begin{array}{r} 1.42 \\ + 2.39 \\ \hline 1 \end{array}$	<p>Step 2 Add the tenths. Write the decimal point in the answer.</p> $\begin{array}{r} 1.42 \\ + 2.39 \\ \hline .81 \end{array}$	<p>Step 3 Add the ones.</p> $\begin{array}{r} 1.42 \\ + 2.39 \\ \hline 3.81 \end{array}$
--	---	---

Adding decimals is just like adding whole numbers. Remember to write the decimal point in the answer.

Guided Practice

► Add.

<p>1.</p> $\begin{array}{r} 6.82 \\ + 1.35 \\ \hline 8.17 \end{array}$	<p>2.</p> $\begin{array}{r} 2.53 \\ + 1.42 \\ \hline \end{array}$	<p>3.</p> $\begin{array}{r} 14.73 \\ + 2.16 \\ \hline \end{array}$	<p>4.</p> $\begin{array}{r} 3.91 \\ + 6.34 \\ \hline \end{array}$	<p>5.</p> $\begin{array}{r} 12.53 \\ + 11.42 \\ \hline \end{array}$
--	---	--	---	---

Practice

► Add.

1. $\begin{array}{r} 4.27 \\ + 3.16 \\ \hline \end{array}$	2. $\begin{array}{r} 5.04 \\ + 3.14 \\ \hline \end{array}$	3. $\begin{array}{r} 5.03 \\ + 2.17 \\ \hline \end{array}$	4. $\begin{array}{r} 2.36 \\ + 1.23 \\ \hline \end{array}$	5. $\begin{array}{r} 5.63 \\ + 4.28 \\ \hline \end{array}$
6. $\begin{array}{r} 6.51 \\ + 3.62 \\ \hline \end{array}$	7. $\begin{array}{r} 8.59 \\ + 2.63 \\ \hline \end{array}$	8. $\begin{array}{r} 9.67 \\ + 3.66 \\ \hline \end{array}$	9. $\begin{array}{r} 11.29 \\ + 7.16 \\ \hline \end{array}$	10. $\begin{array}{r} 10.85 \\ + 9.76 \\ \hline \end{array}$
11. $\begin{array}{r} 12.47 \\ + 6.13 \\ \hline \end{array}$	12. $\begin{array}{r} 14.64 \\ + 8.52 \\ \hline \end{array}$	13. $\begin{array}{r} 18.57 \\ + 2.64 \\ \hline \end{array}$	14. $\begin{array}{r} 23.61 \\ + 4.76 \\ \hline \end{array}$	15. $\begin{array}{r} 17.62 \\ + 8.51 \\ \hline \end{array}$
16. $\begin{array}{r} 14.72 \\ + 11.65 \\ \hline \end{array}$	17. $\begin{array}{r} 25.94 \\ + 15.62 \\ \hline \end{array}$	18. $\begin{array}{r} 19.04 \\ + 11.73 \\ \hline \end{array}$	19. $\begin{array}{r} 32.74 \\ + 12.68 \\ \hline \end{array}$	20. $\begin{array}{r} 13.75 \\ + 16.75 \\ \hline \end{array}$

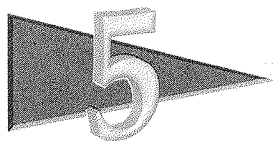
Using Math

- Terri baby-sat one weekend. On Saturday she earned \$6.25. On Sunday she earned \$8.75. How much did she earn in all?

She earned _____ in all.

Work here.





Step 1: Subtract the hundredths.

Subtracting Decimals

When you subtract decimals, always line up the decimal points.

Subtract 2.37 from 4.85.

<p>Step 1 Subtract the hundredths. Regroup if you need to.</p> $\begin{array}{r} ^7 ^{15} \\ 4.\cancel{8}\cancel{5} \\ -2.37 \\ \hline 8 \end{array}$	<p>Step 2 Subtract the tenths. Write the decimal point in the answer.</p> $\begin{array}{r} ^7 ^{15} \\ 4.\cancel{8}\cancel{5} \\ -2.37 \\ \hline .48 \end{array}$	<p>Step 3 Subtract the ones.</p> $\begin{array}{r} ^7 ^{15} \\ 4.\cancel{8}\cancel{5} \\ -2.37 \\ \hline 2.48 \end{array}$
---	--	--

Guided Practice

► Subtract.

<p>1. $\begin{array}{r} ^3 ^{12} \\ 8.\cancel{4}\cancel{2} \\ -6.16 \\ \hline 2.26 \end{array}$</p>	<p>2. $\begin{array}{r} 3.96 \\ -2.75 \\ \hline \end{array}$</p>	<p>3. $\begin{array}{r} 7.54 \\ -3.82 \\ \hline \end{array}$</p>	<p>4. $\begin{array}{r} 5.54 \\ -3.24 \\ \hline \end{array}$</p>	<p>5. $\begin{array}{r} 6.91 \\ -1.96 \\ \hline \end{array}$</p>
<p>6. $\begin{array}{r} 19.52 \\ -10.01 \\ \hline \end{array}$</p>	<p>7. $\begin{array}{r} 55.55 \\ -11.46 \\ \hline \end{array}$</p>	<p>8. $\begin{array}{r} 39.77 \\ -18.86 \\ \hline \end{array}$</p>	<p>9. $\begin{array}{r} 10.65 \\ -4.27 \\ \hline \end{array}$</p>	<p>10. $\begin{array}{r} 12.37 \\ -10.52 \\ \hline \end{array}$</p>

Practice

➤ Subtract.

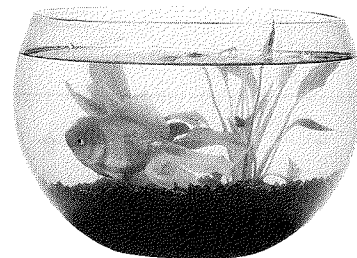
1. $\begin{array}{r} 6.75 \\ - 2.41 \\ \hline \end{array}$	2. $\begin{array}{r} 9.63 \\ - 8.42 \\ \hline \end{array}$	3. $\begin{array}{r} 4.96 \\ - 1.85 \\ \hline \end{array}$	4. $\begin{array}{r} 3.84 \\ - 0.32 \\ \hline \end{array}$	5. $\begin{array}{r} 7.46 \\ - 2.17 \\ \hline \end{array}$
6. $\begin{array}{r} 8.45 \\ - 5.16 \\ \hline \end{array}$	7. $\begin{array}{r} 2.76 \\ - 1.28 \\ \hline \end{array}$	8. $\begin{array}{r} 5.93 \\ - 2.75 \\ \hline \end{array}$	9. $\begin{array}{r} 6.47 \\ - 2.72 \\ \hline \end{array}$	10. $\begin{array}{r} 9.84 \\ - 3.91 \\ \hline \end{array}$
11. $\begin{array}{r} 7.66 \\ - 2.84 \\ \hline \end{array}$	12. $\begin{array}{r} 9.62 \\ - 6.71 \\ \hline \end{array}$	13. $\begin{array}{r} 11.62 \\ - 3.51 \\ \hline \end{array}$	14. $\begin{array}{r} 10.86 \\ - 4.67 \\ \hline \end{array}$	15. $\begin{array}{r} 14.83 \\ - 6.91 \\ \hline \end{array}$
16. $\begin{array}{r} 18.45 \\ - 5.72 \\ \hline \end{array}$	17. $\begin{array}{r} 17.83 \\ - 14.26 \\ \hline \end{array}$	18. $\begin{array}{r} 27.65 \\ - 11.28 \\ \hline \end{array}$	19. $\begin{array}{r} 19.76 \\ - 12.92 \\ \hline \end{array}$	20. $\begin{array}{r} 31.65 \\ - 16.52 \\ \hline \end{array}$

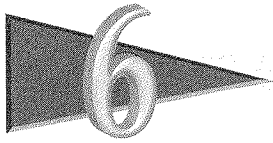
Using Math

➤ Mark had \$15.25 in the bank. He took out \$9.17 for a new fish tank. How much money does he have left?

He has _____ left.

Work here.





Adding and Subtracting Decimals

Can you add 1.4 and 1.35? Yes, you can add numbers that have different place values. You can change 1.4 to hundredths by writing a zero after the 4 to make 1.40. Writing a zero after the last digit in a decimal does not change the value of the decimal.

Step 1	Step 2	Step 3
Line up the decimal points.	Write a zero.	Add.
$\begin{array}{r} 1.4 \\ + 1.35 \\ \hline \end{array}$	$\begin{array}{r} 1.40 \\ + 1.35 \\ \hline \end{array}$	$\begin{array}{r} 1.40 \\ + 1.35 \\ \hline 2.75 \end{array}$

You can also subtract decimals that have different place values. Subtract 3.62 from 8.7.

Step 1	Step 2	Step 3
Line up the decimal points.	Write a zero.	Subtract.
$\begin{array}{r} 8.7 \\ - 3.62 \\ \hline \end{array}$	$\begin{array}{r} 8.70 \\ - 3.62 \\ \hline \end{array}$	$\begin{array}{r} 8.70 \\ - 3.62 \\ \hline 5.08 \end{array}$

You can write a whole number as a decimal by writing a decimal point and one or more zeros after the whole number. $10 = 10.0 = 10.00$

Guided Practice

► Write the zeros. Then add or subtract.

1. $\begin{array}{r} 3.26 \\ + 1.10 \\ \hline 4.36 \end{array}$	2. $\begin{array}{r} 25.8 \\ + 16.27 \\ \hline \end{array}$	3. $\begin{array}{r} 6.8 \\ - 4.63 \\ \hline \end{array}$	4. $\begin{array}{r} 37.82 \\ - 23.6 \\ \hline \end{array}$	5. $\begin{array}{r} 45. \\ - 2.8 \\ \hline \end{array}$
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Practice

 Write the zeros. Then add or subtract.

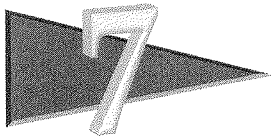
1. $\begin{array}{r} 6.78 \\ +1.4 \\ \hline \end{array}$	2. $\begin{array}{r} 5.29 \\ +3.4 \\ \hline \end{array}$	3. $\begin{array}{r} 7.67 \\ +4.8 \\ \hline \end{array}$	4. $\begin{array}{r} 8.81 \\ +6 \\ \hline \end{array}$	5. $\begin{array}{r} 19.6 \\ +14.25 \\ \hline \end{array}$
6. $\begin{array}{r} 25.9 \\ +14.86 \\ \hline \end{array}$	7. $\begin{array}{r} 16.6 \\ +14.79 \\ \hline \end{array}$	8. $\begin{array}{r} 32.2 \\ +15.53 \\ \hline \end{array}$	9. $\begin{array}{r} 9.82 \\ +6.5 \\ \hline \end{array}$	10. $\begin{array}{r} 32.3 \\ +29.02 \\ \hline \end{array}$
11. $\begin{array}{r} 9.73 \\ -7.2 \\ \hline \end{array}$	12. $\begin{array}{r} 11.84 \\ -6.9 \\ \hline \end{array}$	13. $\begin{array}{r} 13.32 \\ -6.7 \\ \hline \end{array}$	14. $\begin{array}{r} 12.97 \\ -11.6 \\ \hline \end{array}$	15. $\begin{array}{r} 8.4 \\ -6.57 \\ \hline \end{array}$
16. $\begin{array}{r} 9.4 \\ -6.84 \\ \hline \end{array}$	17. $\begin{array}{r} 13.8 \\ -10.65 \\ \hline \end{array}$	18. $\begin{array}{r} 76.9 \\ -25.43 \\ \hline \end{array}$	19. $\begin{array}{r} 9.64 \\ -2.7 \\ \hline \end{array}$	20. $\begin{array}{r} 45 \\ -41.39 \\ \hline \end{array}$

Problem Solving

► Use two steps to solve.

Simon bought parts for his bicycle. The parts cost \$7.32 and \$1.08. He paid with a \$10 bill. How much change did Simon receive?

Step 1	Step 2
_____	_____ change



Milliliters and Liters

You learned that liquids can be measured using cups, pints, or quarts. Liquids can also be measured using metric measures. **Liters** and **milliliters** are used to measure liquids.

A raindrop is about 1 milliliter of liquid.



A carton of orange juice is about 1 liter of liquid.



$$1,000 \text{ milliliters} = 1 \text{ liter}$$

Guided Practice

► Ring the unit of measure you would use.

1. a glass of water milliliter liter	2. a jug of apple cider milliliter liter
3. medicine in a spoon milliliter liter	4. water in a swimming pool milliliter liter
5. formula in a baby's bottle milliliter liter	6. a large carton of milk milliliter liter
7. water in a birdbath milliliter liter	8. bottle of vanilla flavoring milliliter liter

Practice

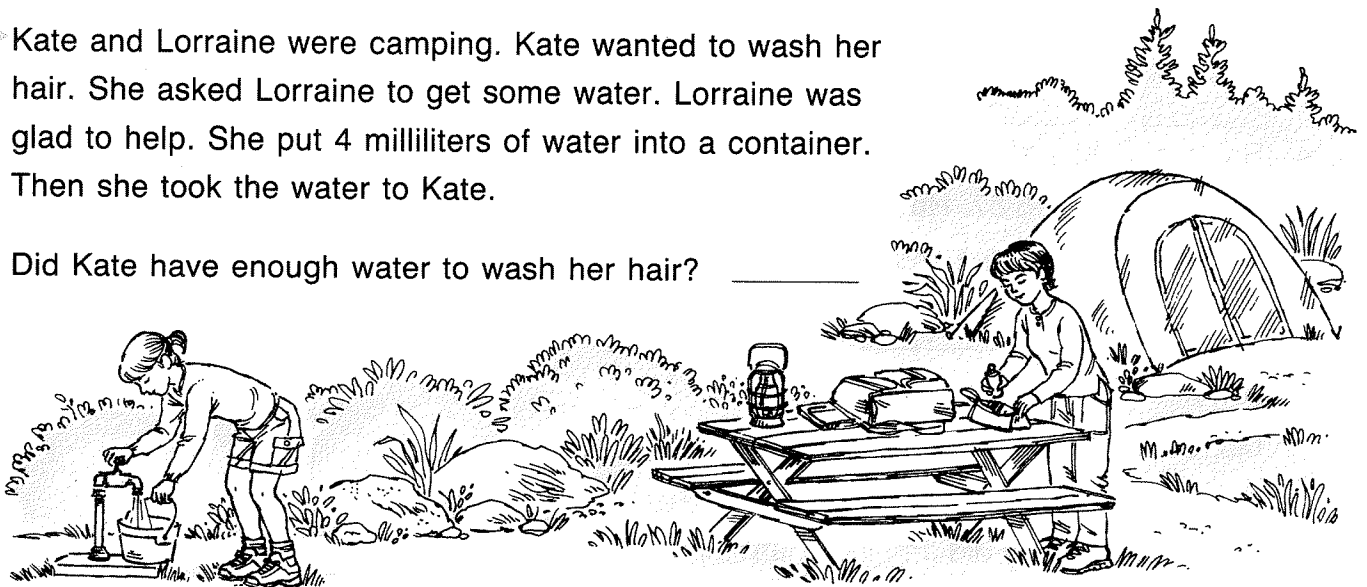
► Ring the unit of measure you would use.

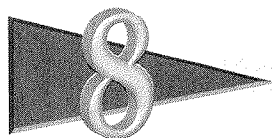
1. water in a bathtub milliliter liter	2. perfume in a bottle milliliter liter
3. sunscreen lotion in a bottle milliliter liter	4. a bottle of fingernail polish milliliter liter
5. gasoline in a tank milliliter liter	6. a can of house paint milliliter liter
7. a sink full of water milliliter liter	8. a bowl of soup milliliter liter
9. dew on a flower milliliter liter	10. a bottle of cooking oil milliliter liter

Using Math

► Kate and Lorraine were camping. Kate wanted to wash her hair. She asked Lorraine to get some water. Lorraine was glad to help. She put 4 milliliters of water into a container. Then she took the water to Kate.

Did Kate have enough water to wash her hair? _____





Problem Solving

Two-Step Problems

Carina had \$21.34 in the bank. She took out \$7.00 to buy a poster. The next day, Carina put \$5.12 more in the bank. How much money did Carina have in the bank then?

This is a two-step problem.
You will use more than one operation to solve it.

Step 1 Read the problem to find what you need first.

Solve for that part.

Carina had \$21.34 in the bank.

She took out \$7.00 to buy a poster.

$$\begin{array}{r} \$21.34 \\ - \$7.00 \\ \hline \$14.34 \end{array}$$

Step 2 Read the problem to find the next fact.

Use the answer from Step 1 to solve.

The next day Carina put \$5.12 more in the bank.

$$\begin{array}{r} \$14.34 \\ + \$5.12 \\ \hline \$19.46 \end{array}$$

Guided Practice

► Use two steps to solve.

	Step 1	Step 2
1. Raymond got a shirt for \$32.98 and a hat for \$15.87. He gave the clerk \$50.00. How much change did Raymond get back?	$\begin{array}{r} \$32.98 \\ + \$15.87 \\ \hline \$48.85 \end{array}$	$\begin{array}{r} \$50.00 \\ - \$48.85 \\ \hline \$1.15 \end{array}$
2. Jeri had \$17.34 in her pocket. Ms. Sanchez paid her \$10.00 to mow the lawn. Then Jeri spent \$4.26 for lunch. How much money did Jeri have left?	$\underline{\hspace{2cm}}$	$\underline{\hspace{2cm}}$

Practice

► Use two steps to solve.

1. Emily had \$3.68. She got \$5.00 for her birthday. Then she spent \$1.98 for poster paint. How much money did Emily have left?
2. Jiro had \$12.58 in one pocket and \$9.45 in another pocket. He bought a model sports car for \$13.04. How much money did Jiro have left?
3. Jack earned \$10.00 for mowing lawns and \$12.50 for raking leaves. Then he spent \$6.57 for a bicycle tire. How much money did Jack have left?
4. Thao had \$14.64. He spent \$2.50 for a sandwich. Then Thao got \$5.00 for washing Mr. Kwan's car. How much money did Thao have then?
5. Bianca had \$4.25 and Maria had \$3.70. They put their money together to buy Ms. Lopez a gift. The gift cost \$6.98. How much money did Bianca and Maria have left?
6. Erin had \$20.00. She bought a skirt and a blouse for \$14.76. Later that day, Erin took back the skirt and got back \$7.50 for it. How much money did Erin have then?

Step 1	Step 2
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

► Write each decimal. pages 72–73

1. 7 tenths = _____

2. 3 tenths = _____

3. 1 tenth = _____

4. 8 and 8 tenths = _____

5. 1 and 4 tenths = _____

6. 12 and 9 tenths = _____

pages 74–75

7. 2 hundredths = _____

8. 9 hundredths = _____

9. 1 hundredth = _____

10. 1 and 25 hundredths = _____

11. 4 and 3 hundredths = _____

12. 26 and 19 hundredths = _____

► Compare the decimals. Write $>$ or $<$. pages 76–77

13. 0.4 _____ 0.6

14. 0.5 _____ 0.2

15. 4.7 _____ 4.2

16. 26.03 _____ 26.08

17. 19.45 _____ 19.42

18. 6.08 _____ 6.09

► Add. pages 78–79

$$\begin{array}{r} 19. \\ 3.17 \\ + 2.42 \\ \hline \end{array}$$

$$\begin{array}{r} 20. \\ 5.37 \\ + 2.84 \\ \hline \end{array}$$

$$\begin{array}{r} 21. \\ 7.06 \\ + 3.14 \\ \hline \end{array}$$

$$\begin{array}{r} 22. \\ 9.53 \\ + 2.61 \\ \hline \end{array}$$

$$\begin{array}{r} 23. \\ 8.35 \\ + 4.74 \\ \hline \end{array}$$

$$\begin{array}{r} 24. \\ 14.81 \\ + 3.63 \\ \hline \end{array}$$

$$\begin{array}{r} 25. \\ 18.17 \\ + 6.09 \\ \hline \end{array}$$

$$\begin{array}{r} 26. \\ 36.72 \\ + 12.31 \\ \hline \end{array}$$

$$\begin{array}{r} 27. \\ 45.39 \\ + 26.48 \\ \hline \end{array}$$

$$\begin{array}{r} 28. \\ 15.23 \\ + 12.64 \\ \hline \end{array}$$

➤ Subtract. pages 80–81

29. $\begin{array}{r} 7.63 \\ - 4.52 \\ \hline \end{array}$	30. $\begin{array}{r} 3.75 \\ - 0.23 \\ \hline \end{array}$	31. $\begin{array}{r} 8.54 \\ - 4.72 \\ \hline \end{array}$	32. $\begin{array}{r} 5.84 \\ - 1.25 \\ \hline \end{array}$	33. $\begin{array}{r} 6.32 \\ - 2.81 \\ \hline \end{array}$
34. $\begin{array}{r} 14.72 \\ - 6.56 \\ \hline \end{array}$	35. $\begin{array}{r} 16.37 \\ - 4.62 \\ \hline \end{array}$	36. $\begin{array}{r} 27.87 \\ - 10.68 \\ \hline \end{array}$	37. $\begin{array}{r} 36.52 \\ - 29.38 \\ \hline \end{array}$	38. $\begin{array}{r} 40.35 \\ - 12.91 \\ \hline \end{array}$

➤ Write the zeros. Then add or subtract. pages 82–83

39. $\begin{array}{r} 6.42 \\ + 1.3 \\ \hline \end{array}$	40. $\begin{array}{r} 3.1 \\ + 4.26 \\ \hline \end{array}$	41. $\begin{array}{r} 25.6 \\ + 12.72 \\ \hline \end{array}$	42. $\begin{array}{r} 17.34 \\ + 26.5 \\ \hline \end{array}$	43. $\begin{array}{r} 10.7 \\ + 5 \\ \hline \end{array}$
44. $\begin{array}{r} 9.23 \\ - 7.4 \\ \hline \end{array}$	45. $\begin{array}{r} 11.8 \\ - 6.75 \\ \hline \end{array}$	46. $\begin{array}{r} 13.42 \\ - 10.6 \\ \hline \end{array}$	47. $\begin{array}{r} 36.5 \\ - 13.26 \\ \hline \end{array}$	48. $\begin{array}{r} 9 \\ - 4.32 \\ \hline \end{array}$

➤ Ring the unit of measure you would use. pages 84–85

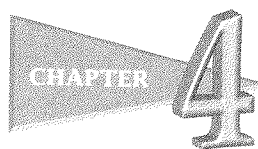
49. a cup of soup milliliter liter	50. a fish tank full of water milliliter liter
51. a bucket of water milliliter liter	52. a bottle of cough syrup milliliter liter

► Use two steps to solve.

pages 86–87

53. Mita had \$4.95. She got a gift of \$5.00. Then she bought a book for \$6.98. How much money did Mita have left?
-
54. Tomas had saved \$15.69. He bought a game for \$9.18. Then he saved \$17.00 more. How much money did Tomas have then?
-
55. Donetta bought a pen for \$1.29 and a stapler for \$6.97. She gave the store clerk \$10.00. How much change did Donetta get back?
-
56. Mr. Zhang bought running shoes for \$39.95 and socks for \$4.50. He gave the sales clerk \$50.00. How much change did Mr. Zhang get in return?
-
57. Ms. Cruz had \$42.00 in her wallet. She bought a model plane for her son for \$17.08. Then she cashed a check for \$30.00 more. How much money did Ms. Cruz have then?

Step 1	Step 2
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____



Test

► Write each decimal.

1. 5 tenths = _____

2. 8 hundredths = _____

► Compare the decimals. Write $>$ or $<$.

3. 0.8 _____ 0.3

4. 1.4 _____ 1.7

5. 8.76 _____ 8.79

► Add.

6. $\begin{array}{r} 6.26 \\ + 3.13 \\ \hline \end{array}$	7. $\begin{array}{r} 8.45 \\ + 6.26 \\ \hline \end{array}$	8. $\begin{array}{r} 15.37 \\ + 2.56 \\ \hline \end{array}$	9. $\begin{array}{r} 22.83 \\ + 15.92 \\ \hline \end{array}$	10. $\begin{array}{r} 5.38 \\ + 7.44 \\ \hline \end{array}$
---	---	--	---	--

► Subtract.

11. $\begin{array}{r} 3.94 \\ - 2.83 \\ \hline \end{array}$	12. $\begin{array}{r} 7.64 \\ - 2.81 \\ \hline \end{array}$	13. $\begin{array}{r} 15.83 \\ - 6.21 \\ \hline \end{array}$	14. $\begin{array}{r} 25.94 \\ - 10.65 \\ \hline \end{array}$	15. $\begin{array}{r} 32.15 \\ - 14.61 \\ \hline \end{array}$
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► Write the zeros. Then add or subtract.

16. $\begin{array}{r} 7.26 \\ + 2.4 \\ \hline \end{array}$	17. $\begin{array}{r} 23.1 \\ + 12.57 \\ \hline \end{array}$	18. $\begin{array}{r} 12.9 \\ - 6.34 \\ \hline \end{array}$	19. $\begin{array}{r} 27.72 \\ - 11.2 \\ \hline \end{array}$	20. $\begin{array}{r} 4.5 \\ - 1.26 \\ \hline \end{array}$
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► Ring the unit of measure you would use.

21. ink in a pen milliliter liter	22. punch in a punch bowl milliliter liter
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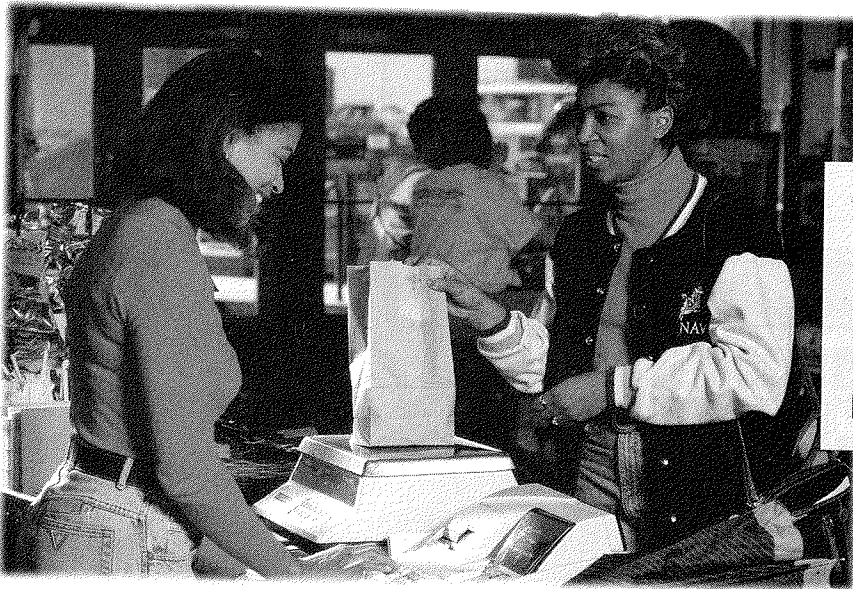
CHAPTER 4 Test

► Use two steps to solve.

23. Li had \$6.86. She earned \$8.50 babysitting. Then she spent \$7.75 on a cassette tape. How much money did Li have left?
24. Jill saved \$21.06. She spent \$6.50 on a baseball cap. Then she got \$14.00 for her birthday. How much money did Jill have then?
25. Luis bought a magazine for \$1.98 and a sandwich for \$2.49. He gave the clerk \$5.00. How much change did Luis get back?
26. Henry bought a shirt for \$11.99 and a pair of shorts for \$7.80. Henry had \$20.00 he could spend. How much of that money did he have left?
27. Karl earned \$9.75 for babysitting the Valdez children and \$11.00 for babysitting the Rendon children. Then he spent \$15.03 on a music video. How much money did Karl have left?

Step 1	Step 2
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

5

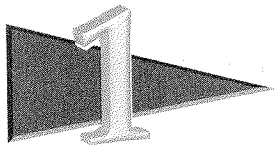
Multiplying
Decimals

Ms. Hill buys 1.35 pounds of ground meat for a family recipe. If the price is \$2 per pound, how much will this purchase cost?

Solve



► Write a problem about buying something by the pound.



Decimal Place Value to Thousandths

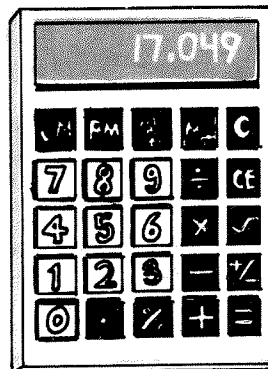
The value of a digit in a decimal depends on its place in the number. You can use a place-value chart to find the value of a digit in a decimal.

tens	ones	.	tenths	hundredths	thousandths
	0	.	3		
	5	.	1	6	
1	7	.	0	4	9

$$= 0.3 = 3 \text{ tenths}$$

$$= 5.16 = 5 \text{ and } 16 \text{ hundredths}$$

$$= 17.049 = 17 \text{ and } 49 \text{ thousandths}$$



Write a zero when there are no ones, tenths, or hundredths in the number.

$$5 \text{ tenths} = 0.5 \leftarrow \text{no ones}$$

$$5 \text{ hundredths} = 0.05 \leftarrow \text{no ones, no tenths}$$

$$5 \text{ thousandths} = 0.005 \leftarrow \text{no ones, no tenths, no hundredths}$$

Guided Practice

► Write each decimal.

1. 127 thousandths = 0.127

2. 45 thousandths = _____

3. 5 and 2 tenths = _____

4. 3 hundredths = _____

5. 875 thousandths = _____

6. 12 and 5 thousandths = _____

Practice

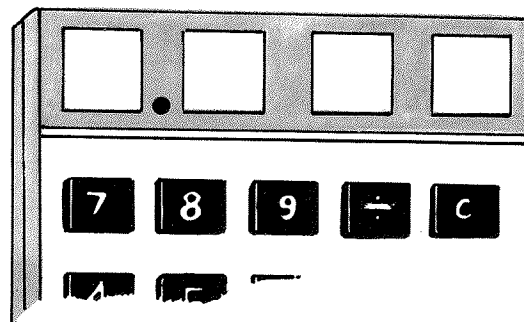
► Write each decimal.

1. 1 and 6 tenths = _____
2. 4 and 12 hundredths = _____
3. 8 and 247 thousandths = _____
4. 3 and 496 thousandths = _____
5. 9 and 28 hundredths = _____
6. 15 and 8 hundredths = _____
7. 27 and 13 thousandths = _____
8. 9 and 726 thousandths = _____
9. 52 and 4 tenths = _____
10. 28 and 19 hundredths = _____
11. 75 and 7 tenths = _____
12. 427 thousandths = _____
13. 239 thousandths = _____
14. 9 tenths = _____
15. 17 and 29 thousandths = _____
16. 4 and 3 thousandths = _____
17. 13 and 81 hundredths = _____
18. 7 tenths = _____
19. 18 thousandths = _____
20. 4 and 1 hundredth = _____

Using Math

► Use all the digits below to write the smallest decimal possible. Write the digits in the boxes on the calculator.

0 7 4 0





Multiplying a Decimal by a Whole Number

You already know how to multiply whole numbers. Now you can multiply a decimal by a whole number.

Step 1 Multiply as if you were multiplying whole numbers.

$$\begin{array}{r} 1 \\ 5.42 \\ \times 3 \\ \hline 1626 \end{array}$$

Step 2 Start at the right and count the number of decimal places in the factors.

$$\begin{array}{r} 5.42 \text{ — 2 decimal places} \\ \times 3 \\ \hline 1626 \end{array}$$

Step 3 Start at the right and count the same number of decimal places you counted in Step 2. Write the decimal point in the answer.

$$\begin{array}{r} 5.42 \\ \times 3 \\ \hline 16.26 \text{ — 2 decimal places} \end{array}$$

Guided Practice

► Multiply.

1. $\begin{array}{r} 0.8 \\ \times 6 \\ \hline 4.8 \end{array}$	2. $\begin{array}{r} 4.1 \\ \times 2 \\ \hline \end{array}$	3. $\begin{array}{r} 2.7 \\ \times 4 \\ \hline \end{array}$	4. $\begin{array}{r} 7.12 \\ \times 3 \\ \hline \end{array}$	5. $\begin{array}{r} 0.59 \\ \times 2 \\ \hline \end{array}$
6. $\begin{array}{r} 2.1 \\ \times 5 \\ \hline \end{array}$	7. $\begin{array}{r} 12.33 \\ \times 2 \\ \hline \end{array}$	8. $\begin{array}{r} 0.87 \\ \times 7 \\ \hline \end{array}$	9. $\begin{array}{r} 3.12 \\ \times 8 \\ \hline \end{array}$	10. $\begin{array}{r} 3.4 \\ \times 9 \\ \hline \end{array}$

Practice

► Multiply.

1. $\begin{array}{r} 4.7 \\ \times 2 \\ \hline \end{array}$	2. $\begin{array}{r} 3.8 \\ \times 4 \\ \hline \end{array}$	3. $\begin{array}{r} 5.1 \\ \times 6 \\ \hline \end{array}$	4. $\begin{array}{r} 0.5 \\ \times 7 \\ \hline \end{array}$	5. $\begin{array}{r} 6.9 \\ \times 2 \\ \hline \end{array}$
6. $\begin{array}{r} 7.81 \\ \times 5 \\ \hline \end{array}$	7. $\begin{array}{r} 8.9 \\ \times 8 \\ \hline \end{array}$	8. $\begin{array}{r} 3.72 \\ \times 9 \\ \hline \end{array}$	9. $\begin{array}{r} 4.2 \\ \times 6 \\ \hline \end{array}$	10. $\begin{array}{r} 8.63 \\ \times 7 \\ \hline \end{array}$
11. $\begin{array}{r} 5.5 \\ \times 3 \\ \hline \end{array}$	12. $\begin{array}{r} 7.8 \\ \times 4 \\ \hline \end{array}$	13. $\begin{array}{r} 9.14 \\ \times 3 \\ \hline \end{array}$	14. $\begin{array}{r} 2.6 \\ \times 8 \\ \hline \end{array}$	15. $\begin{array}{r} 7.46 \\ \times 4 \\ \hline \end{array}$
16. $\begin{array}{r} 8.3 \\ \times 7 \\ \hline \end{array}$	17. $\begin{array}{r} 0.56 \\ \times 8 \\ \hline \end{array}$	18. $\begin{array}{r} 8.3 \\ \times 3 \\ \hline \end{array}$	19. $\begin{array}{r} 7.62 \\ \times 6 \\ \hline \end{array}$	20. $\begin{array}{r} 4.82 \\ \times 2 \\ \hline \end{array}$

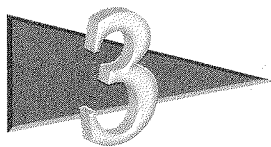
Using Math

► Art bought 3 books. Each book cost \$1.25.
How much did Art pay in all?

He paid _____ in all.

Work here.





multiply tenths

Multiplying Tenths

When you multiply two decimals in tenths, the product is in hundredths.

Step 1 Multiply.

$$\begin{array}{r} 0.4 \\ \times 0.6 \\ \hline 0.24 \end{array}$$

Step 2 Count the number of decimal places in the two factors. Write the decimal point in the product.

$$\begin{array}{r} 0.4 \text{ — 1 decimal place} \\ \times 0.6 \text{ — 1 decimal place} \\ \hline 0.24 \text{ — 2 decimal places} \end{array}$$

Guided Practice

► Multiply.

1. $\begin{array}{r} 1.4 \\ \times 2.1 \\ \hline 14 \\ +280 \\ \hline 2.94 \end{array}$	2. $\begin{array}{r} 3.6 \\ \times 2.4 \\ \hline \end{array}$	3. $\begin{array}{r} 0.5 \\ \times 0.3 \\ \hline \end{array}$	4. $\begin{array}{r} 6.7 \\ \times 3.8 \\ \hline \end{array}$	5. $\begin{array}{r} 2.9 \\ \times 0.5 \\ \hline \end{array}$
6. $\begin{array}{r} 2.1 \\ \times 1.2 \\ \hline \end{array}$	7. $\begin{array}{r} 0.7 \\ \times 0.8 \\ \hline \end{array}$	8. $\begin{array}{r} 3.4 \\ \times 0.3 \\ \hline \end{array}$	9. $\begin{array}{r} 5.5 \\ \times 3.9 \\ \hline \end{array}$	10. $\begin{array}{r} 8.1 \\ \times 1.8 \\ \hline \end{array}$

Practice

► Multiply.

1. $\begin{array}{r} 1.6 \\ \times 2.3 \\ \hline \end{array}$	2. $\begin{array}{r} 0.8 \\ \times 0.4 \\ \hline \end{array}$	3. $\begin{array}{r} 3.7 \\ \times 2.1 \\ \hline \end{array}$	4. $\begin{array}{r} 6.5 \\ \times 4.5 \\ \hline \end{array}$	5. $\begin{array}{r} 0.7 \\ \times 0.5 \\ \hline \end{array}$
6. $\begin{array}{r} 6.4 \\ \times 3.1 \\ \hline \end{array}$	7. $\begin{array}{r} 5.7 \\ \times 3.2 \\ \hline \end{array}$	8. $\begin{array}{r} 3.6 \\ \times 5.2 \\ \hline \end{array}$	9. $\begin{array}{r} 8.2 \\ \times 1.1 \\ \hline \end{array}$	10. $\begin{array}{r} 7.6 \\ \times 4.9 \\ \hline \end{array}$
11. $\begin{array}{r} 8.2 \\ \times 1.3 \\ \hline \end{array}$	12. $\begin{array}{r} 5.1 \\ \times 0.2 \\ \hline \end{array}$	13. $\begin{array}{r} 3.2 \\ \times 3.2 \\ \hline \end{array}$	14. $\begin{array}{r} 1.8 \\ \times 1.4 \\ \hline \end{array}$	15. $\begin{array}{r} 6.3 \\ \times 0.6 \\ \hline \end{array}$

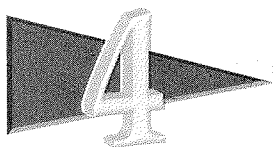
Using Math

► Juan runs 6.2 miles in an hour. How far can he run in 1.5 hours?

Work here.

He can run _____ miles.





Multiplying Tenths and Hundredths

Multiply 3.56 by 2.4.

$$\begin{array}{r}
 3.56 \text{ — 2 decimal places} \\
 \times 2.4 \text{ — +1 decimal place} \\
 \hline
 1424 \\
 +7120 \\
 \hline
 8.544 \text{ — 3 decimal places}
 \end{array}$$

Multiply 8.46 by 3.5.

$$\begin{array}{r}
 8.46 \text{ — 2 decimal places} \\
 \times 3.5 \text{ — +1 decimal place} \\
 \hline
 4230 \\
 +25380 \\
 \hline
 29.610 \text{ — 3 decimal places} \\
 \text{Drop 0. } 29.610 = 29.61
 \end{array}$$

If the last digit is a zero, you can drop it. Dropping the last zero in a decimal does not change the value of the number.

Guided Practice

► Multiply.

1. $ \begin{array}{r} 2.35 \\ \times 2.7 \\ \hline 1645 \\ +4700 \\ \hline 6.345 \end{array} $	2. $ \begin{array}{r} 5.24 \\ \times 3.1 \\ \hline \end{array} $	3. $ \begin{array}{r} 8.25 \\ \times 0.2 \\ \hline \end{array} $	4. $ \begin{array}{r} 2.35 \\ \times 2.6 \\ \hline \end{array} $	5. $ \begin{array}{r} 26.52 \\ \times 1.8 \\ \hline \end{array} $
6. $ \begin{array}{r} 2.01 \\ \times 1.2 \\ \hline \end{array} $	7. $ \begin{array}{r} 3.24 \\ \times 3.3 \\ \hline \end{array} $	8. $ \begin{array}{r} 9.14 \\ \times 6.1 \\ \hline \end{array} $	9. $ \begin{array}{r} 7.22 \\ \times 0.5 \\ \hline \end{array} $	10. $ \begin{array}{r} 4.56 \\ \times 0.4 \\ \hline \end{array} $

Practice

► Multiply.

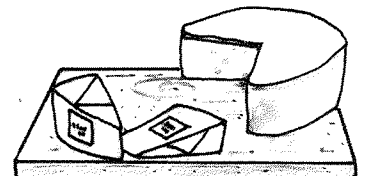
1. $\begin{array}{r} 2.47 \\ \times 3.5 \\ \hline \end{array}$	2. $\begin{array}{r} 5.38 \\ \times 0.2 \\ \hline \end{array}$	3. $\begin{array}{r} 4.96 \\ \times 2.4 \\ \hline \end{array}$	4. $\begin{array}{r} 5.15 \\ \times 6.8 \\ \hline \end{array}$	5. $\begin{array}{r} 4.19 \\ \times 3.6 \\ \hline \end{array}$
6. $\begin{array}{r} 2.56 \\ \times 1.7 \\ \hline \end{array}$	7. $\begin{array}{r} 3.53 \\ \times 6.1 \\ \hline \end{array}$	8. $\begin{array}{r} 4.48 \\ \times 2.8 \\ \hline \end{array}$	9. $\begin{array}{r} 29.30 \\ \times 0.5 \\ \hline \end{array}$	10. $\begin{array}{r} 6.25 \\ \times 3.4 \\ \hline \end{array}$
11. $\begin{array}{r} 6.71 \\ \times 1.3 \\ \hline \end{array}$	12. $\begin{array}{r} 8.72 \\ \times 9.4 \\ \hline \end{array}$	13. $\begin{array}{r} 9.73 \\ \times 4.6 \\ \hline \end{array}$	14. $\begin{array}{r} 8.05 \\ \times 0.9 \\ \hline \end{array}$	15. $\begin{array}{r} 6.39 \\ \times 2.8 \\ \hline \end{array}$

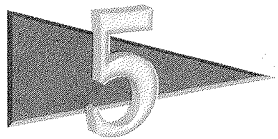
Using Math

► Cheese costs \$2.98 for one pound. How much does 1.5 pounds cost?

It costs _____.

Work here.





5th Grade Math

Zeros in the Product

Sometimes you have to write one or more zeros in the product when multiplying decimals.

Multiply 0.2 by 0.4.

0.2 ← 1 decimal place

× 0.4 ← + 1 decimal place

0.08 ← 2 decimal places

↑ Write a zero in the product so that you can have **2** decimal places.

Multiply 0.03 by 0.2.

0.03 ← 2 decimal places

× 0.2 ← + 1 decimal place

0.006 ← 3 decimal places

↑↑ Write two zeros in the product so that you can have **3** decimal places.

Guided Practice

► Multiply.

1. $\begin{array}{r} 0.02 \\ \times 0.1 \\ \hline 0.002 \end{array}$	2. $\begin{array}{r} 0.36 \\ \times 0.2 \\ \hline \end{array}$	3. $\begin{array}{r} 0.3 \\ \times 0.3 \\ \hline \end{array}$	4. $\begin{array}{r} 0.02 \\ \times 4 \\ \hline \end{array}$	5. $\begin{array}{r} 0.017 \\ \times 5 \\ \hline \end{array}$
6. $\begin{array}{r} 0.01 \\ \times 6 \\ \hline \end{array}$	7. $\begin{array}{r} 0.4 \\ \times 0.2 \\ \hline \end{array}$	8. $\begin{array}{r} 0.005 \\ \times 3 \\ \hline \end{array}$	9. $\begin{array}{r} 0.34 \\ \times 0.2 \\ \hline \end{array}$	10. $\begin{array}{r} 0.09 \\ \times 0.5 \\ \hline \end{array}$

Practice

► Multiply.

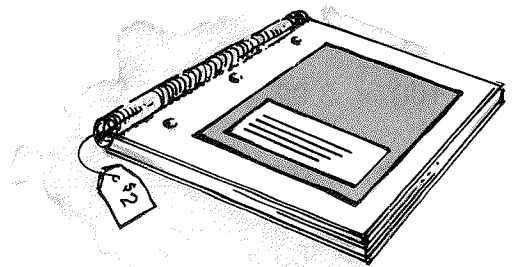
1. $\begin{array}{r} 0.03 \\ \times 0.3 \\ \hline \end{array}$	2. $\begin{array}{r} 0.34 \\ \times 0.2 \\ \hline \end{array}$	3. $\begin{array}{r} 0.15 \\ \times 0.3 \\ \hline \end{array}$	4. $\begin{array}{r} 0.06 \\ \times 0.8 \\ \hline \end{array}$	5. $\begin{array}{r} 0.03 \\ \times 0.5 \\ \hline \end{array}$
6. $\begin{array}{r} 0.01 \\ \times 0.9 \\ \hline \end{array}$	7. $\begin{array}{r} 0.2 \\ \times 0.3 \\ \hline \end{array}$	8. $\begin{array}{r} 0.9 \\ \times 0.1 \\ \hline \end{array}$	9. $\begin{array}{r} 0.2 \\ \times 0.2 \\ \hline \end{array}$	10. $\begin{array}{r} 0.6 \\ \times 0.1 \\ \hline \end{array}$
11. $\begin{array}{r} 0.01 \\ \times 5 \\ \hline \end{array}$	12. $\begin{array}{r} 0.03 \\ \times 2 \\ \hline \end{array}$	13. $\begin{array}{r} 0.01 \\ \times 7 \\ \hline \end{array}$	14. $\begin{array}{r} 0.026 \\ \times 3 \\ \hline \end{array}$	15. $\begin{array}{r} 0.039 \\ \times 2 \\ \hline \end{array}$
16. $\begin{array}{r} 0.08 \\ \times 0.8 \\ \hline \end{array}$	17. $\begin{array}{r} 0.05 \\ \times 1 \\ \hline \end{array}$	18. $\begin{array}{r} 0.02 \\ \times 2 \\ \hline \end{array}$	19. $\begin{array}{r} 0.027 \\ \times 3 \\ \hline \end{array}$	20. $\begin{array}{r} 0.04 \\ \times 0.4 \\ \hline \end{array}$

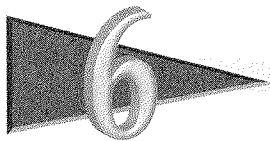
Using Math

- Helen is buying a notebook that costs \$2. She has to pay sales tax on the notebook. The tax is \$0.04 for each dollar. How much sales tax does she have to pay?

She has to pay _____ sales tax.

Work here.





Multiplying Decimals by 10, 100, and 1,000

When you multiply a decimal by 10, 100, or 1,000, the decimal becomes greater in value.

See the pattern:

$$\begin{array}{r} 0.842 \leftarrow 3 \text{ decimal places} \\ \times 10 \\ \hline 8.420 \leftarrow 3 \text{ decimal places} \\ 8.42 \quad \text{Drop zero.} \end{array}$$

Multiplying a decimal by 10 moves the decimal point **one place** to the right.
There is **one zero** in 10.

$$10 \times 0.842 = 8.42$$

$$\begin{array}{r} 0.842 \leftarrow 3 \text{ decimal places} \\ \times 100 \\ \hline 84.200 \leftarrow 3 \text{ decimal places} \\ 84.2 \quad \text{Drop zeros.} \end{array}$$

Multiplying a decimal by 100 moves the decimal point **two places** to the right.
There are **two zeros** in 100.

$$100 \times 0.842 = 84.2$$

$$\begin{array}{r} 0.842 \leftarrow 3 \text{ decimal places} \\ \times 1,000 \\ \hline 842.000 \leftarrow 3 \text{ decimal places} \\ 842 \quad \text{Drop zeros.} \end{array}$$

Multiplying a decimal by 1,000 moves the decimal point **three places** to the right.
There are **three zeros** in 1,000.

$$1,000 \times 0.842 = 842$$

Guided Practice

► Multiply.

1. $100 \times 3.92 = \underline{392}$

2. $10 \times 7.1 = \underline{\hspace{2cm}}$

3. $1,000 \times 0.497 = \underline{\hspace{2cm}}$

4. $100 \times 0.046 = \underline{\hspace{2cm}}$

5. $10 \times 2.368 = \underline{\hspace{2cm}}$

6. $1,000 \times 1.786 = \underline{\hspace{2cm}}$

Practice

► Multiply.

1. $10 \times 8.9 =$ _____

3. $10 \times 0.7 =$ _____

5. $100 \times 6.91 =$ _____

7. $100 \times 0.87 =$ _____

9. $1,000 \times 1.429 =$ _____

11. $1,000 \times 0.535 =$ _____

13. $100 \times 1.04 =$ _____

15. $1,000 \times 3.303 =$ _____

17. $10 \times 1.7 =$ _____

19. $100 \times 6.91 =$ _____

2. $10 \times 6.4 =$ _____

4. $10 \times 3.965 =$ _____

6. $100 \times 7.22 =$ _____

8. $100 \times 2.396 =$ _____

10. $1,000 \times 9.795 =$ _____

12. $1,000 \times 6.317 =$ _____

14. $10 \times 2.9 =$ _____

16. $100 \times 16.68 =$ _____

18. $1,000 \times 8.293 =$ _____

20. $10 \times 4.5 =$ _____

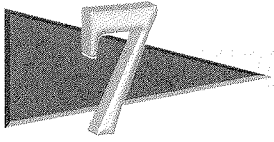
Using Math

► Use two steps to solve.

Kendra bought a shirt for \$12.99 and a pair of shoes for \$19.95. She gave the sales clerk \$40.00. How much change did Kendra get back?



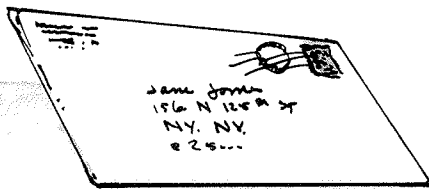
Step 1	Step 2
_____	_____



Ounces and Pounds

You measure how light or heavy an object is to find its **weight**. Two units of weight are the **ounce** and the **pound**. Light objects are measured in ounces. Heavier objects are measured in pounds.

A letter weighs about 1 ounce.

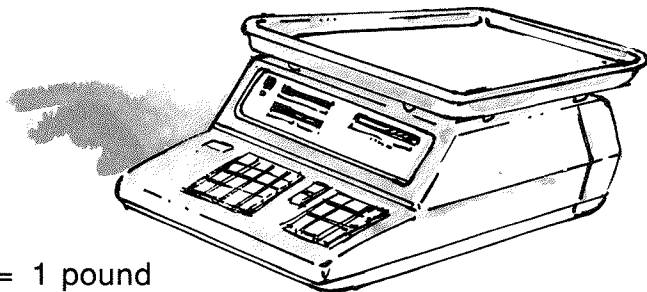
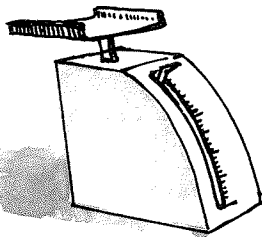


1 ounce

A loaf of bread weighs about 1 pound.



1 pound



16 ounces = 1 pound

Guided Practice

► Ring the word that completes each sentence.

1. A bag of potatoes weighs 10 ____ ounces pounds
2. A bar of soap weighs 6 ____ ounces pounds
3. Mr. Eliot weighs 159 ____ ounces pounds
4. A comb weighs 1 ____ ounce pound
5. A sack of flour weighs 5 ____ ounces pounds

Practice

► Ring the word that completes each sentence.

1. A loaf of bread weighs 1 _____. ounce pound
2. A pencil weighs 1 _____. ounce pound
3. A turkey weighs 11 _____. ounces pounds
4. A desk weighs 17 _____. ounces pounds
5. One orange weighs 8 _____. ounces pounds
6. Sam's collie weighs 30 _____. ounces pounds
7. A slice of toast weighs 1 _____. ounce pound
8. A pair of scissors weighs 3 _____. ounces pounds

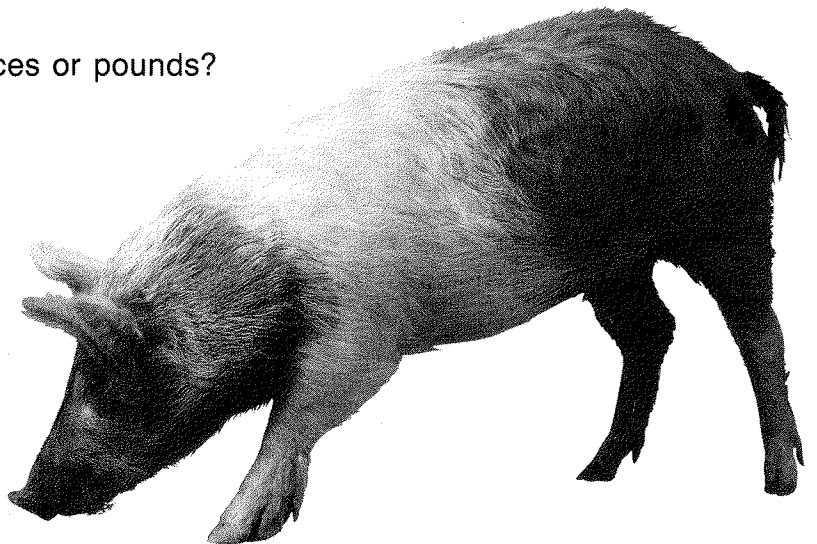
Using Math

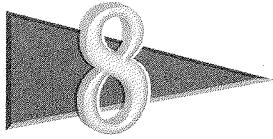
► Juan took his pig, Spot, to the vet for a checkup. First the doctor listened to Spot's heartbeat. Then she looked at Spot's teeth. Then she looked at Spot's eyes and ears. Next the doctor decided to weigh Spot. Juan helped the doctor lift Spot onto the scale.

Was Spot's weight measured in ounces or pounds?

Spot's weight was measured in

_____.





Problem Solving

Choose an Operation

Ms. Lee got a free book for every 6 books that her students ordered. The students ordered 144 books. How many free books did Ms. Lee get?

$$\begin{array}{r} 144 \\ + 6 \\ \hline 150 \text{ books} \end{array}$$

$$\begin{array}{r} 144 \\ - 6 \\ \hline 138 \text{ books} \end{array}$$

$$\begin{array}{r} 144 \\ \times 6 \\ \hline 864 \text{ books} \end{array}$$

$$\begin{array}{r} 24 \text{ books} \\ 6 \overline{) 144} \end{array}$$

Add to put things together.
Subtract to take things away.
Multiply to combine groups.
Divide to separate groups.

Guided Practice

► Ring the correct problem.

1. Rick Vasca sells tickets at Cinema 8.
He sells 200 tickets each day. He works 5 days every week. How many tickets does Rick sell in a week?

$$\begin{array}{r} 200 \\ + 5 \\ \hline 205 \text{ tickets} \end{array}$$

$$\begin{array}{r} 200 \\ - 5 \\ \hline 195 \text{ tickets} \end{array}$$

$$\begin{array}{r} 200 \\ \times 5 \\ \hline 1,000 \text{ tickets} \end{array}$$

$$\begin{array}{r} 40 \text{ tickets} \\ 5 \overline{) 200} \end{array}$$

2. Melody Brown has 28 video game tokens.
Her best friend, Jasmine Lewis, has 14 video game tokens.
How many video game tokens do Melody and Jasmine have together?

$$\begin{array}{r} 28 \\ + 14 \\ \hline 42 \text{ tokens} \end{array}$$

$$\begin{array}{r} 28 \\ - 14 \\ \hline 14 \text{ tokens} \end{array}$$

$$\begin{array}{r} 28 \\ \times 14 \\ \hline 392 \text{ tokens} \end{array}$$

$$\begin{array}{r} 2 \text{ tokens} \\ 14 \overline{) 28} \end{array}$$

Practice

► Ring the correct problem.

1. In a zoo, the Indian elephant eats 32 pounds of grain mix each day. How many pounds of grain mix does the zoo need each day for 8 elephants?

$$\begin{array}{r} 32 \\ + 8 \\ \hline 40 \text{ pounds} \end{array}$$

$$\begin{array}{r} 32 \\ - 8 \\ \hline 24 \text{ pounds} \end{array}$$

$$\begin{array}{r} 32 \\ \times 8 \\ \hline 256 \text{ pounds} \end{array}$$

$$\begin{array}{r} 4 \text{ pounds} \\ 8 \overline{) 32} \end{array}$$

2. One sea lion eats 11 pounds of fish each day. Another one eats 9 pounds of fish each day. How many pounds of fish in all do these sea lions eat in one day?

$$\begin{array}{r} 11 \\ + 9 \\ \hline 20 \text{ pounds} \end{array}$$

$$\begin{array}{r} 11 \\ - 9 \\ \hline 2 \text{ pounds} \end{array}$$

$$\begin{array}{r} 11 \\ \times 9 \\ \hline 99 \text{ pounds} \end{array}$$

$$\begin{array}{r} 1 \text{ R2 pounds} \\ 9 \overline{) 11} \end{array}$$

3. The zoo had 350 pounds of oats. The zoo keeper fed the animals 50 pounds of oats. How many pounds of oats were left?

$$\begin{array}{r} 350 \\ + 50 \\ \hline 400 \text{ pounds} \end{array}$$

$$\begin{array}{r} 350 \\ - 50 \\ \hline 300 \text{ pounds} \end{array}$$

$$\begin{array}{r} 350 \\ \times 50 \\ \hline 17,500 \text{ pounds} \end{array}$$

$$\begin{array}{r} 7 \text{ pounds} \\ 50 \overline{) 350} \end{array}$$

4. Polar bears in the zoo eat 15 pounds of bear chow each day. How many polar bears can the zoo feed with 180 pounds of bear chow?

$$\begin{array}{r} 180 \\ + 15 \\ \hline 195 \text{ bears} \end{array}$$

$$\begin{array}{r} 180 \\ - 15 \\ \hline 165 \text{ bears} \end{array}$$

$$\begin{array}{r} 180 \\ \times 15 \\ \hline 2,700 \text{ bears} \end{array}$$

$$\begin{array}{r} 12 \text{ bears} \\ 15 \overline{) 180} \end{array}$$

CHAPTER 5 Review

► Write each decimal. pages 94–95

1. 2 and 8 tenths = _____

2. 3 and 2 thousandths = _____

3. 423 thousandths = _____

4. 1 and 5 hundredths = _____

5. 2 and 4 tenths = _____

6. 17 and 22 thousandths = _____

► Multiply.

<p>pages 96–97</p> <p>7. $\begin{array}{r} 3.6 \\ \times 4 \\ \hline \end{array}$</p>	<p>8. $\begin{array}{r} 5.2 \\ \times 3 \\ \hline \end{array}$</p>	<p>9. $\begin{array}{r} 6.95 \\ \times 5 \\ \hline \end{array}$</p>	<p>10. $\begin{array}{r} 0.76 \\ \times 8 \\ \hline \end{array}$</p>	<p>11. $\begin{array}{r} 4.62 \\ \times 9 \\ \hline \end{array}$</p>
<p>pages 98–99</p> <p>12. $\begin{array}{r} 1.4 \\ \times 2.6 \\ \hline \end{array}$</p>	<p>13. $\begin{array}{r} 0.7 \\ \times 0.5 \\ \hline \end{array}$</p>	<p>14. $\begin{array}{r} 7.3 \\ \times 1.9 \\ \hline \end{array}$</p>	<p>15. $\begin{array}{r} 5.9 \\ \times 4.3 \\ \hline \end{array}$</p>	<p>16. $\begin{array}{r} 6.4 \\ \times 7.2 \\ \hline \end{array}$</p>
<p>pages 100–101</p> <p>17. $\begin{array}{r} 3.92 \\ \times 4.1 \\ \hline \end{array}$</p>	<p>18. $\begin{array}{r} 6.87 \\ \times 0.3 \\ \hline \end{array}$</p>	<p>19. $\begin{array}{r} 9.36 \\ \times 6.5 \\ \hline \end{array}$</p>	<p>20. $\begin{array}{r} 8.21 \\ \times 3.2 \\ \hline \end{array}$</p>	<p>21. $\begin{array}{r} 4.56 \\ \times 7.2 \\ \hline \end{array}$</p>

CHAPTER 5 Review

► Multiply.

<p>pages 100–101</p> <p>22. $\begin{array}{r} 1.21 \\ \times 5.5 \\ \hline \end{array}$</p>	<p>23. $\begin{array}{r} 2.13 \\ \times 0.7 \\ \hline \end{array}$</p>	<p>24. $\begin{array}{r} 2.05 \\ \times 1.8 \\ \hline \end{array}$</p>	<p>25. $\begin{array}{r} 5.67 \\ \times 1.1 \\ \hline \end{array}$</p>	<p>26. $\begin{array}{r} 7.11 \\ \times 2.4 \\ \hline \end{array}$</p>
<p>pages 102–103</p> <p>27. $\begin{array}{r} 0.02 \\ \times 2 \\ \hline \end{array}$</p>	<p>28. $\begin{array}{r} 0.14 \\ \times 0.2 \\ \hline \end{array}$</p>	<p>29. $\begin{array}{r} 0.3 \\ \times 0.3 \\ \hline \end{array}$</p>	<p>30. $\begin{array}{r} 0.012 \\ \times 8 \\ \hline \end{array}$</p>	<p>31. $\begin{array}{r} 0.05 \\ \times 0.7 \\ \hline \end{array}$</p>
<p>32. $\begin{array}{r} 0.36 \\ \times 0.1 \\ \hline \end{array}$</p>	<p>33. $\begin{array}{r} 0.009 \\ \times 9 \\ \hline \end{array}$</p>	<p>34. $\begin{array}{r} 0.14 \\ \times 0.3 \\ \hline \end{array}$</p>	<p>35. $\begin{array}{r} 0.2 \\ \times 0.4 \\ \hline \end{array}$</p>	<p>36. $\begin{array}{r} 0.05 \\ \times 0.5 \\ \hline \end{array}$</p>

pages 104–105

37. $10 \times 7.6 = \underline{\hspace{2cm}}$

38. $100 \times 4.83 = \underline{\hspace{2cm}}$

39. $1,000 \times 6.925 = \underline{\hspace{2cm}}$

40. $1,000 \times 9.822 = \underline{\hspace{2cm}}$

41. $10 \times 100.2 = \underline{\hspace{2cm}}$

42. $100 \times 0.99 = \underline{\hspace{2cm}}$

► Ring the word that completes each sentence. pages 106–107

43. A football player weighs 215 _____. ounces pounds

44. An egg weighs 4 _____. ounces pounds

45. 18 pennies weigh about 2 _____. ounces pounds

► Ring the correct problem.

pages 108–109

46. Scouts entered 246 cars in the pinewood derby.

6 cars raced at a time. How many races in all were held?

$$\begin{array}{r} 246 \\ + 6 \\ \hline 252 \end{array} \text{ races}$$

$$\begin{array}{r} 246 \\ - 6 \\ \hline 240 \end{array} \text{ races}$$

$$\begin{array}{r} 246 \\ \times 6 \\ \hline 1,476 \end{array} \text{ races}$$

$$\begin{array}{r} 41 \text{ races} \\ 6 \overline{) 246} \end{array}$$

47. Ms. Garcia took 129 students to an art show.

Only 43 students could be in the building at a time.

How many students had to wait while the first group went in?

$$\begin{array}{r} 129 \\ + 43 \\ \hline 172 \end{array} \text{ students}$$

$$\begin{array}{r} 129 \\ - 43 \\ \hline 86 \end{array} \text{ students}$$

$$\begin{array}{r} 129 \\ \times 43 \\ \hline 5,547 \end{array} \text{ students}$$

$$\begin{array}{r} 3 \text{ students} \\ 43 \overline{) 129} \end{array}$$

48. Martin Luther King Elementary sent 9 classes to the science fair.

Each class had 27 students.

How many students in all went to the science fair?

$$\begin{array}{r} 27 \\ + 9 \\ \hline 36 \end{array} \text{ students}$$

$$\begin{array}{r} 27 \\ - 9 \\ \hline 18 \end{array} \text{ students}$$

$$\begin{array}{r} 27 \\ \times 9 \\ \hline 243 \end{array} \text{ students}$$

$$\begin{array}{r} 3 \text{ students} \\ 9 \overline{) 27} \end{array}$$

49. Keisha had a collection of 70 sea shells.

She found 35 more.

How many shells in all did Keisha have then?

$$\begin{array}{r} 70 \\ + 35 \\ \hline 105 \end{array} \text{ shells}$$

$$\begin{array}{r} 70 \\ - 35 \\ \hline 35 \end{array} \text{ shells}$$

$$\begin{array}{r} 70 \\ \times 35 \\ \hline 2,450 \end{array} \text{ shells}$$

$$\begin{array}{r} 2 \text{ shells} \\ 35 \overline{) 70} \end{array}$$

CHAPTER 5

Test

➤ Write each decimal.

1. 426 thousandths = _____

2. 8 and 72 thousandths = _____

3. 5 and 3 tenths = _____

4. 16 and 24 hundredths = _____

➤ Multiply.

<p>5.</p> $\begin{array}{r} 0.5 \\ \times 9 \\ \hline \end{array}$	<p>6.</p> $\begin{array}{r} 4.63 \\ \times 6 \\ \hline \end{array}$	<p>7.</p> $\begin{array}{r} 9.2 \\ \times 0.4 \\ \hline \end{array}$	<p>8.</p> $\begin{array}{r} 3.7 \\ \times 6.9 \\ \hline \end{array}$
<p>9.</p> $\begin{array}{r} 2.39 \\ \times 3.1 \\ \hline \end{array}$	<p>10.</p> $\begin{array}{r} 4.62 \\ \times 4.5 \\ \hline \end{array}$	<p>11.</p> $\begin{array}{r} 0.13 \\ \times 0.2 \\ \hline \end{array}$	<p>12.</p> $\begin{array}{r} 0.04 \\ \times 2 \\ \hline \end{array}$

13. $10 \times 2.6 =$ _____

14. $100 \times 1.49 =$ _____

15. $1,000 \times 8.623 =$ _____

16. $100 \times 7.94 =$ _____

➤ Ring the word that completes each sentence.

17. A sack of potatoes weighs 10 _____. ounces pounds

18. A package of sliced cheese weighs 10 _____. ounces pounds

CHAPTER 5 Test

► Ring the correct problem.

19. Che used 108 popsicle sticks to build one fort.

He built a fort for each of his 3 brothers.

How many popsicle sticks did he use?

$$\begin{array}{r} 108 \\ + 3 \\ \hline 111 \end{array} \text{ sticks}$$

$$\begin{array}{r} 108 \\ - 3 \\ \hline 105 \end{array} \text{ sticks}$$

$$\begin{array}{r} 108 \\ \times 3 \\ \hline 324 \end{array} \text{ sticks}$$

$$\begin{array}{r} 36 \text{ sticks} \\ 3 \overline{)108} \end{array}$$

20. In one month, LaShonda read a 125-page book on famous women chemists.

She read a 25-page book on Sally Ride, the astronaut.

How many pages in all did she read?

$$\begin{array}{r} 125 \\ + 25 \\ \hline 150 \end{array} \text{ pages}$$

$$\begin{array}{r} 125 \\ - 25 \\ \hline 100 \end{array} \text{ pages}$$

$$\begin{array}{r} 125 \\ \times 25 \\ \hline 3,125 \end{array} \text{ pages}$$

$$\begin{array}{r} 25 \text{ pages} \\ 5 \overline{)125} \end{array}$$

21. Vinny earned \$459 on a paper route. He spent \$51 on a video game

and saved the rest. How much did Vinny save?

$$\begin{array}{r} \$459 \\ + \$ 51 \\ \hline \$510 \end{array} \text{ saved}$$

$$\begin{array}{r} \$459 \\ - \$ 51 \\ \hline \$408 \end{array} \text{ saved}$$

$$\begin{array}{r} \$ 459 \\ \times \$ 51 \\ \hline \$23,409 \end{array} \text{ saved}$$

$$\begin{array}{r} \$ 9 \text{ saved} \\ \$51 \overline{) \$459} \end{array}$$

22. Ms. Stein's band had 49 trumpet players. She put 7 trumpet players

in each group. How many groups did Ms. Stein make?

$$\begin{array}{r} 49 \\ + 7 \\ \hline 56 \end{array} \text{ groups}$$

$$\begin{array}{r} 49 \\ - 7 \\ \hline 42 \end{array} \text{ groups}$$

$$\begin{array}{r} 49 \\ \times 7 \\ \hline 343 \end{array} \text{ groups}$$

$$\begin{array}{r} 7 \text{ groups} \\ 7 \overline{)49} \end{array}$$

6

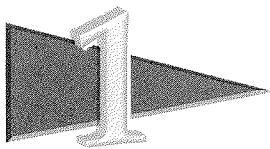
Dividing Decimals by
Whole Numbers

The Innatore family drove 148.8 miles to camp for a week in a state park. The car used 8 gallons of gasoline to travel this distance. How many miles did it travel on 1 gallon?

Solve

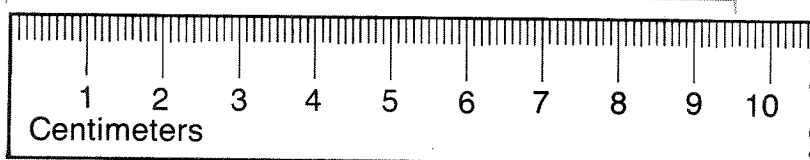


► Write a problem about a car trip you would like to take.



Dividing Tenths

The line to the right is 9.6 centimeters long. Can you divide the line into 4 equal parts? Yes.



Divide 9.6 by 4. $4 \overline{)9.6}$

Step 1

Write the decimal point in the quotient directly above the decimal point in the dividend.

$$4 \overline{)9.6}$$

Step 2

Divide as you would with whole numbers.

Divide $9 \div 4$

Write 2 in the ones' place.

Multiply 2×4

Subtract $9 - 8$

$$\begin{array}{r} 2. \\ 4 \overline{)9.6} \\ \underline{-8} \\ 1 \end{array}$$

Step 3

Bring down the 6 tenths.

Divide $16 \div 4$

Write 4 in the tenths' place.

Multiply 4×4

Subtract $16 - 16$

$$\begin{array}{r} 2.4 \\ 4 \overline{)9.6} \\ \underline{-8} \\ 16 \\ \underline{-16} \\ 0 \end{array}$$

Check the answer by multiplying.

$$\begin{array}{r} 1 \\ 2.4 \text{—1 decimal place} \\ \times 4 \\ \hline 9.6 \text{—1 decimal place} \end{array}$$

Guided Practice

► Divide.

1.
$$\begin{array}{r} 5.9 \\ 3 \overline{)17.7} \\ \underline{-15} \\ 27 \\ \underline{-27} \\ 0 \end{array}$$

2.
$$6 \overline{)18.6}$$

3.
$$2 \overline{)9.4}$$

4.
$$3 \overline{)6.9}$$

Practice

► Divide.

1. $5 \overline{) 49.5}$	2. $3 \overline{) 3.9}$	3. $8 \overline{) 72.8}$	4. $2 \overline{) 7.2}$
5. $9 \overline{) 56.7}$	6. $6 \overline{) 49.8}$	7. $4 \overline{) 12.8}$	8. $7 \overline{) 50.4}$
9. $2 \overline{) 18.6}$	10. $3 \overline{) 14.1}$	11. $5 \overline{) 37.5}$	12. $8 \overline{) 22.4}$

Using Math

► Sally can ride her bicycle 20.1 miles in 3 hours. How far can she ride in 1 hour?

She can ride _____ miles in one hour.

Work here.





Dividing Hundredths

Divide 20.96 by 4. $4 \overline{)20.96}$

<p>Step 1</p> <p>Write the decimal point in the quotient.</p> <p>$4 \overline{)20.96}$</p>	<p>Step 2</p> <p>Divide $20 \div 4$</p> <p>Write 5 in the ones' place.</p> <p>Multiply 5×4</p> <p>Subtract $20 - 20$</p> <p>$4 \overline{)20.96}$ $\underline{20}$ 0</p>
<p>Step 3</p> <p>Bring down the 9 tenths.</p> <p>Divide $9 \div 4$</p> <p>Write 2 in the tenths' place.</p> <p>Multiply 2×4</p> <p>Subtract $9 - 8$</p> <p>$4 \overline{)20.96}$ $\underline{20}$ 09 $\underline{8}$ 1</p>	<p>Step 4</p> <p>Bring down the 6 hundredths.</p> <p>Divide $16 \div 4$</p> <p>Write 4 in the hundredths' place.</p> <p>Multiply 4×4</p> <p>Subtract $16 - 16$</p> <p>Check the answer by multiplying.</p> <p>$4 \overline{)20.96}$ $\underline{20}$ 09 $\underline{8}$ 16 $\underline{16}$ 0</p>

Guided Practice

► Divide.

<p>1.</p> $\begin{array}{r} 3.75 \\ 2 \overline{)7.50} \\ \underline{-6} \\ 15 \\ \underline{-14} \\ 10 \\ \underline{-10} \\ 0 \end{array}$	<p>2.</p> $4 \overline{)16.44}$	<p>3.</p> $7 \overline{)87.22}$	<p>4.</p> $3 \overline{)15.87}$
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Practice

► Divide.

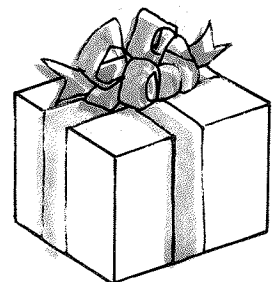
1. $9 \overline{) 18.99}$	2. $2 \overline{) 4.84}$	3. $7 \overline{) 82.95}$	4. $6 \overline{) 9.84}$
5. $5 \overline{) 14.20}$	6. $3 \overline{) 12.69}$	7. $4 \overline{) 90.72}$	8. $9 \overline{) 65.07}$
9. $2 \overline{) 89.56}$	10. $5 \overline{) 26.05}$	11. $6 \overline{) 81.24}$	12. $8 \overline{) 28.72}$

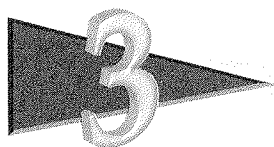
Using Math

► Mary has \$11.31. She wants to buy presents for her 3 friends. She wants to spend the same amount for each present. How much can she spend for each present?

She can spend _____ for each present.

Work here.

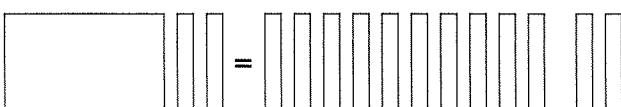




Regrouping Whole Numbers as Tenths

When you divide a decimal by a whole number, sometimes you need to regroup whole numbers as tenths.

Divide 1.26 by 3. $3 \overline{)1.26}$

<p>Step 1</p> <p>Write the decimal point in the quotient.</p> <p>Can you divide 1 by 3? No.</p> <p>Write a zero over the 1.</p> <p>This is the ones' place.</p>	<p>Step 2</p> <p>Regroup the whole 1 and 2 tenths as 12 tenths.</p>  <p>1.2 = 12 tenths</p>
<p>Step 3</p> <p>Divide 12 tenths by 3.</p> <p>Write 4 in the tenths' place.</p> <p>Multiply 4×3</p> <p>Subtract $12 - 12$</p>	<p>Step 4</p> <p>Bring down the 6 hundredths.</p> <p>Divide $6 \div 3$</p> <p>Write 2 in the hundredths' place.</p> <p>Multiply 2×3</p> <p>Subtract $6 - 6$</p> <p>Check the answer by multiplying.</p>

Guided Practice

► Divide.

<p>1. $5 \overline{)4.25}$</p> <p>-40</p> <p>$\underline{25}$</p> <p>-25</p> <p>$\underline{0}$</p>	<p>2. $9 \overline{)8.46}$</p>	<p>3. $7 \overline{)5.81}$</p>	<p>4. $3 \overline{)1.56}$</p>
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Practice

► Divide.

1. $4 \overline{)3.84}$	2. $7 \overline{)4.76}$	3. $2 \overline{)1.48}$	4. $5 \overline{)2.15}$
5. $8 \overline{)7.04}$	6. $3 \overline{)2.28}$	7. $6 \overline{)1.32}$	8. $2 \overline{)1.90}$
9. $6 \overline{)1.44}$	10. $7 \overline{)3.01}$	11. $3 \overline{)1.86}$	12. $8 \overline{)2.80}$

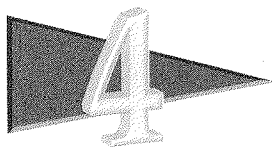
Using Math

► Kim has 4 more days before she will receive her allowance. She has \$2.92. If she spends an equal amount each of the 4 days, how much money can Kim spend each day?

Kim can spend _____ each day.

Work here.





4. Long Division with Decimals

Zeros in the Quotient

Sometimes you have to write zeros in the quotient when dividing decimals.

<p>Step 1</p> <p>Write the decimal point in the quotient.</p> <p>Divide $12 \div 3$</p> <p>Write 4 in the ones' place.</p> <p>Multiply 4×3</p> <p>Subtract $12 - 12$</p>	$\begin{array}{r} 4. \\ 3 \overline{)12.021} \\ \underline{-12} \\ 0 \end{array}$	<p>Step 2</p> <p>Bring down the 0 tenths.</p> <p>Can you divide 0 by 3? No.</p> <p>Write 0 in the tenths' place.</p> <p>Multiply 0×3</p> <p>Subtract $0 - 0$</p>	$\begin{array}{r} 4.0 \\ 3 \overline{)12.021} \\ \underline{-12} \\ 0 \\ \underline{-0} \\ 0 \end{array}$
<p>Step 3</p> <p>Bring down the 2 hundredths.</p> <p>Can you divide 2 by 3? No.</p> <p>Write 0 in the hundredths' place.</p> <p>Multiply 0×3</p> <p>Subtract $2 - 2$</p>	$\begin{array}{r} 4.00 \\ 3 \overline{)12.021} \\ \underline{-12} \\ 0 \\ \underline{-0} \\ 0 \\ \underline{-0} \\ 0 \end{array}$	<p>Step 4</p> <p>Bring down the 1 thousandth.</p> <p>Can you divide 21 by 3? Yes.</p> <p>Divide $21 \div 3$</p> <p>Multiply 7×3</p> <p>Subtract $21 - 21$</p> <p>Check the answer by multiplying.</p>	$\begin{array}{r} 4.007 \\ 3 \overline{)12.021} \\ \underline{-12} \\ 0 \\ \underline{-0} \\ 0 \\ \underline{-0} \\ 21 \\ \underline{-21} \\ 0 \end{array}$

Guided Practice

► Divide.

1. $\begin{array}{r} 0.006 \\ 8 \overline{)0.048} \\ \underline{-48} \\ 0 \end{array}$	2. $\begin{array}{r} 7 \overline{)0.602} \end{array}$	3. $\begin{array}{r} 3 \overline{)6.18} \end{array}$	4. $\begin{array}{r} 4 \overline{)20.036} \end{array}$
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Practice

► Divide.

1. $6 \overline{)0.384}$	2. $2 \overline{)0.018}$	3. $8 \overline{)0.16}$	4. $5 \overline{)0.485}$
5. $3 \overline{)18.03}$	6. $9 \overline{)0.828}$	7. $4 \overline{)0.36}$	8. $7 \overline{)7.637}$
9. $8 \overline{)30.456}$	10. $2 \overline{)0.084}$	11. $4 \overline{)0.212}$	12. $6 \overline{)3.654}$

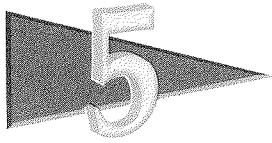
Using Math

- Three friends formed a company called Saturday Yard Service. One Saturday, they earned \$105.15. They divided the money evenly. How much did each person earn?

Each person earned _____.

Work here.





Writing Zeros in the Dividend

Sometimes when you are dividing decimals, you need to write one or more zeros in the dividend to complete the division. Remember that writing one or more zeros **after** the last digit in a decimal does not change its value.

Divide 9.4 by 4. $4\overline{)9.4}$

Step 1

Divide until you have used each digit in the dividend.

$$\begin{array}{r} 2.3 \\ 4\overline{)9.4} \\ \underline{-8} \\ 14 \\ \underline{-12} \\ 2 \end{array}$$

Step 2

Write a zero after the last digit in the dividend.

Complete the division.

Check by multiplying.

$$\begin{array}{r} 2.35 \\ 4\overline{)9.40} \\ \underline{-8} \\ 14 \\ \underline{-12} \\ 20 \\ \underline{-20} \\ 0 \end{array}$$

You can change a whole number to a decimal by writing a decimal point and one or more zeros after the whole number. $3 = 3.0 = 3.00$

Divide 6 by 8. $8\overline{)6}$

Can you divide 6 by 8? No.

Step 1

Write a decimal point and a zero in the dividend. Divide until you have used each digit in the dividend.

$$\begin{array}{r} 0.7 \\ 8\overline{)6.0} \\ \underline{-56} \\ 4 \end{array}$$

Step 2

Write a zero after the last digit in the dividend.

Complete the division.

Check by multiplying.

$$\begin{array}{r} 0.75 \\ 8\overline{)6.00} \\ \underline{-56} \\ 40 \\ \underline{-40} \\ 0 \end{array}$$

Guided Practice

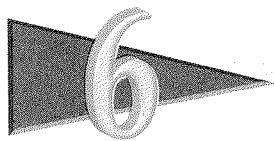
► Divide.

1. $\begin{array}{r} 1.25 \\ 8 \overline{)10.00} \\ \underline{-8} \\ 20 \\ \underline{-16} \\ 40 \\ \underline{-40} \\ 0 \end{array}$	2. $5 \overline{)18.2}$	3. $4 \overline{)0.1}$	4. $6 \overline{)3}$
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Practice

► Divide.

1. $8 \overline{)0.6}$	2. $2 \overline{)0.59}$	3. $6 \overline{)3.9}$	4. $4 \overline{)0.2}$
5. $5 \overline{)2.2}$	6. $4 \overline{)0.5}$	7. $8 \overline{)3.6}$	8. $5 \overline{)26}$
9. $2 \overline{)2.7}$	10. $5 \overline{)43}$	11. $6 \overline{)9}$	12. $4 \overline{)33}$



Dividing by 10, 100, and 1,000

When you divide by 10, 100, or 1,000, the number becomes smaller in value.

Divide 842 by 10, 100, and 1,000.

$$\begin{array}{r}
 84.2 \\
 10 \overline{)842.0} \\
 \underline{-80} \\
 42 \\
 \underline{-40} \\
 20 \\
 \underline{-20} \\
 0
 \end{array}$$

$$\begin{array}{r}
 8.42 \\
 100 \overline{)842.00} \\
 \underline{-800} \\
 420 \\
 \underline{-400} \\
 200 \\
 \underline{-200} \\
 0
 \end{array}$$

$$\begin{array}{r}
 0.842 \\
 1,000 \overline{)842.000} \\
 \underline{-8000} \\
 4200 \\
 \underline{-4000} \\
 2000 \\
 \underline{-2000} \\
 0
 \end{array}$$

Dividing by 10, 100, or 1,000 moves the decimal point **to the left**.

Move one decimal place for each zero in the divisor.

Divide.

$$523.7 \div 10 = 52.37$$

$$523.7 \div 100 = 5.237$$

$$523.7 \div 1,000 = 0.5237$$

Multiplying by 10, 100, or 1,000 moves the decimal point **to the right**.

Move one decimal place for each zero in the factor.

Check by multiplying.

$$52.37 \times 10 = 523.7$$

$$5.237 \times 100 = 523.7$$

$$0.5237 \times 1,000 = 523.7$$

Guided Practice

► Divide. Then check your answer by multiplying.

1. $68 \div 100 = \underline{0.68}$

$100 \times \underline{0.68} = \underline{68}$

2. $36.9 \div 10 = \underline{\hspace{2cm}}$

$10 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

Practice

► Divide. Then check your answer by multiplying.

1. $78.6 \div 10 = \underline{\hspace{2cm}}$ $10 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$	2. $78.6 \div 100 = \underline{\hspace{2cm}}$ $100 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$
3. $836 \div 100 = \underline{\hspace{2cm}}$ $100 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$	4. $836 \div 1,000 = \underline{\hspace{2cm}}$ $1,000 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$
5. $3.62 \div 10 = \underline{\hspace{2cm}}$ $10 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$	6. $36.2 \div 100 = \underline{\hspace{2cm}}$ $100 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$
7. $94 \div 100 = \underline{\hspace{2cm}}$ $100 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$	8. $2 \div 10 = \underline{\hspace{2cm}}$ $10 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$
9. $143 \div 1,000 = \underline{\hspace{2cm}}$ $1,000 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$	10. $6 \div 10 = \underline{\hspace{2cm}}$ $10 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

Problem Solving

► Ring the correct problem.

There are 21 steps in each flight of stairs to Jerry's apartment.

Jerry climbs 7 flights of stairs to his apartment.

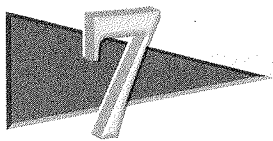
How many steps in all does Jerry climb?

$$\begin{array}{r} 21 \\ + 7 \\ \hline 28 \end{array} \text{ steps}$$

$$\begin{array}{r} 21 \\ - 7 \\ \hline 14 \end{array} \text{ steps}$$

$$\begin{array}{r} 21 \\ \times 7 \\ \hline 147 \end{array} \text{ steps}$$

$$\begin{array}{r} 3 \text{ steps} \\ 7 \overline{) 21} \end{array}$$



Grams and Kilograms

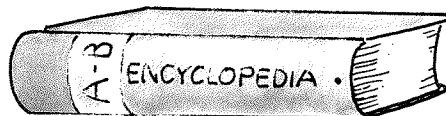
Weight can be measured using metric measures. Light objects are measured in **grams**. Heavier objects are measured in **kilograms**.

A paper clip weighs about 1 gram.

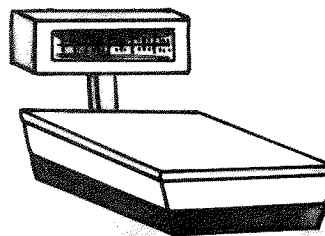
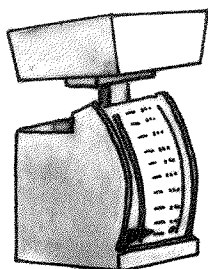


1 gram

A large book weighs about 1 kilogram.



1 kilogram



1,000 grams = 1 kilogram

Guided Practice

► Ring the word that completes each sentence.

1. An egg weighs 5 _____. grams kilograms
2. A dog weighs 12 _____. grams kilograms
3. A baseball bat weighs 1 _____. gram kilogram
4. A hammer weighs 1 _____. gram kilogram
5. A nickel weighs 5 _____. grams kilograms

Practice

► Ring the word that completes each sentence.

1. A hippopotamus weighs 2,600 _____. grams kilograms
2. A light bulb weighs 6 _____. grams kilograms
3. A dollar bill weighs 1 _____. gram kilogram
4. A lion weighs 160 _____. grams kilograms
5. An apple weighs 250 _____. grams kilograms
6. A penny weighs 3 _____. grams kilograms
7. A car weighs 975 _____. grams kilograms
8. A child weighs 30 _____. grams kilograms

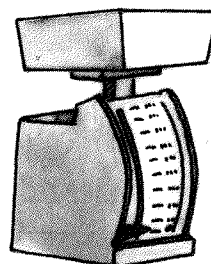
Using Math

► Michelle has a new job. She works in the shipping department of a stereo store. The store has 2 scales. One scale measures weight in kilograms. The other scale measures weight in grams. As each package is given to Michelle, she decides which scale to use.

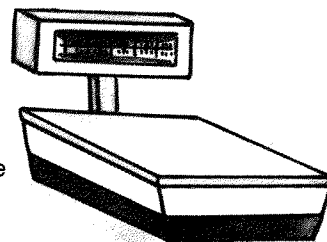
Draw a line to match each object to the scale Michelle should use.

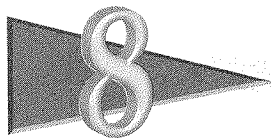
1. AM/FM cassette player/recorder
2. one record album
3. one cassette tape
4. two stereo speakers

gram scale



kilogram scale





Problem Solving

Identify Extra Information

Sometimes a problem gives you more information than you need to solve it.

Lucy stacked 6 rows of boxes. Each row had 18 boxes. There were 5 boxes with prizes inside. How many boxes in all did Lucy stack?

Step 1 Find the **facts you need**.

Lucy stacked 6 rows of boxes.

Each row had 18 boxes.

Step 2 Cross out the **facts you do not need**.

~~There are 5 boxes with prizes inside.~~

Step 3 Solve the problem.

$$\begin{array}{r} 18 \\ \times 6 \\ \hline \end{array}$$

Lucy stacked 108 boxes in all.

Guided Practice

► Cross out the fact you do not need.

Then solve the problem.

1. Adrian has 40 videos.

Each case holds 10 videos.

~~The cases cost \$5.49 each.~~

How many cases did Adrian buy?

$$\begin{array}{r} 4 \text{ cases} \\ 10 \overline{)40} \end{array}$$

2. Su Ling bought 6 packs of basketball cards.

There were 4 cards in each pack. Su saw that 3 of the cards shown were for players on her favorite team.

How many basketball cards did Su get?

cards

Practice

► Cross out the fact you do not need.

Then solve the problem.

-
1. Angela packed 24 bags of cookies.
Each bag cost \$1.50.
These are 6 cookies in each bag. cookies
How many cookies in all did Angela pack?
-
2. Ben put potatoes into 50-pound bags. bags
He put carrots into 10-pound bags.
He has 800 pounds of potatoes. How
many bags of potatoes did Ben have?
-
3. Ying has a 30-foot tree in her yard. sections
She wants to put up a fence that has
8-foot sections. The fence will be 280 feet
long around her backyard. How many
sections of fence will Ying need to fence
in her backyard?
-
4. Maria bought 6 garden hoses. Each hose
is 50 feet long. She bought 8 packages of
seeds. How long will the garden hoses be feet
if she joins them?
-
5. Jose must sell 108 tickets to a school tickets
play. He puts the tickets into groups of six.
He plans to buy one set of tickets. How
many groups of tickets did Jose make?

▶ Divide.

pages 116–117

1.

$$6 \overline{)9.6}$$

2.

$$5 \overline{)20.5}$$

3.

$$8 \overline{)42.4}$$

4.

$$3 \overline{)13.2}$$

pages 118–119

5.

$$7 \overline{)46.97}$$

6.

$$4 \overline{)7.32}$$

7.

$$8 \overline{)48.96}$$

8.

$$3 \overline{)42.84}$$

pages 120–121

9.

$$2 \overline{)1.34}$$

10.

$$5 \overline{)1.15}$$

11.

$$4 \overline{)1.92}$$

12.

$$6 \overline{)5.16}$$

pages 122–123

13.

$$4 \overline{)0.376}$$

14.

$$6 \overline{)24.546}$$

15.

$$9 \overline{)9.45}$$

16.

$$5 \overline{)0.065}$$

► Divide. pages 124–125

17. $8 \overline{)7.60}$	18. $5 \overline{)8.0}$	19. $4 \overline{)1.700}$	20. $2 \overline{)0.130}$
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► Divide. Then check your answer by multiplying. pages 126–127

21. $926 \div 1,000 = \underline{\hspace{2cm}}$ $1,000 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$	22. $79.53 \div 10 = \underline{\hspace{2cm}}$ $10 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$
23. $85 \div 100 = \underline{\hspace{2cm}}$ $100 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$	24. $9 \div 10 = \underline{\hspace{2cm}}$ $10 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$
25. $94 \div 100 = \underline{\hspace{2cm}}$ $100 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$	26. $125 \div 1,000 = \underline{\hspace{2cm}}$ $1,000 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

► Ring the word that completes each sentence. pages 128–129

27. A typewriter weighs 7 _____. grams kilograms

28. A spoon weighs 30 _____. grams kilograms

29. A letter weighs 25 _____. grams kilograms

30. A telephone weighs 2 _____. grams kilograms

► Cross out the fact you do not need.

Then solve the problem. pages 130–131

31. Paul's garden is 28 feet long.

He will plant 14 rows of beans.

He will plant 30 beans in each row.

beans

How many beans will Paul plant?

32. Bev picked 17 baskets of oranges.

She picked 12 baskets of apples. There

are 9 apples in each basket. How

apples

many apples in all did Bev pick?

33. Alberto bought 24 packages of squash

seeds. He bought 19 packages of corn

seeds. There are 5 seeds in each package.

squash seeds

How many squash seeds does Alberto have?

34. Lee has 210 pounds of onions.

He has 12 boxes. He packed all the

onions in 6 boxes. How many pounds

of onions did he pack in each box?

pounds

35. Tanya has 50 flower pots. She plants

3 flower seeds in each pot. She sold

41 pots. How many flower seeds in all

flower seeds

were in the pots she sold?

CHAPTER 6 Test

► Divide.

1. $4 \overline{) 17.2}$	2. $7 \overline{) 52.5}$	3. $5 \overline{) 26.35}$	4. $3 \overline{) 14.91}$
5. $5 \overline{) 2.65}$	6. $6 \overline{) 6.048}$	7. $8 \overline{) 0.680}$	8. $4 \overline{) 4.300}$

► Divide. Then check your answer by multiplying.

9. $18 \div 100 = \underline{\hspace{2cm}}$ $100 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$	10. $24.2 \div 10 = \underline{\hspace{2cm}}$ $10 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$
11. $4,383 \div 1,000 = \underline{\hspace{2cm}}$ $1,000 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$	12. $10.52 \div 100 = \underline{\hspace{2cm}}$ $100 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

► Ring the word that completes each sentence.

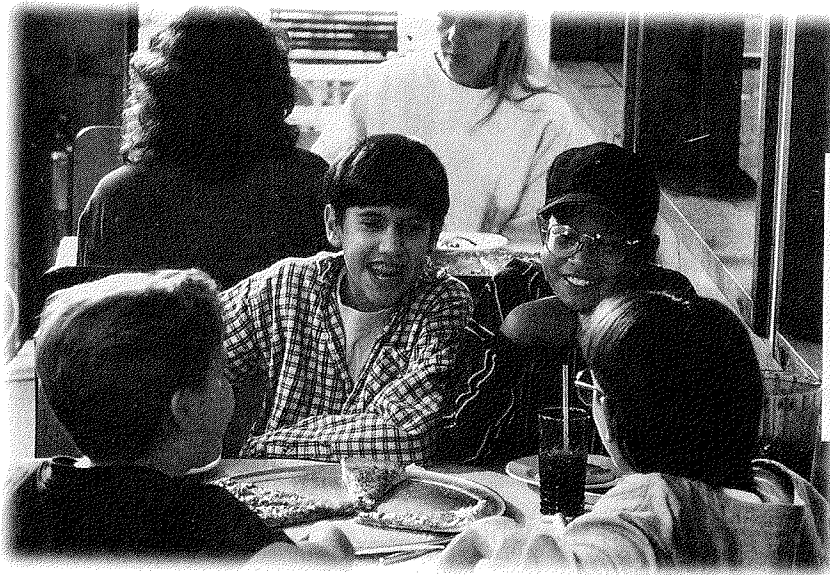
13. A paintbrush weighs 60 _____. grams kilograms

14. A watermelon weighs 4 _____. grams kilograms

- Cross out the fact you do not need.
Then solve the problem.

15. There are 154 band members that will march in a parade. 14 of the band members play the trumpet. The band director puts 7 members in each row. How many rows in all will the band make? rows
-
16. The marching band has 18 drummers. Each drummer has 2 drumsticks. 11 of the drummers can play the piano. How many drumsticks does the marching band have? drumsticks
-
17. There are 78 chairs in the band room. The chairs are in 3 rows. 59 band members came to practice. How many chairs are in each row? chairs
-
18. The marching band plays 17 songs. They practiced playing 8 of the songs on Tuesday. They practiced each song for 12 minutes. How many minutes did the band practice on Tuesday? minutes
-
19. The band director put 6 band members in a row at the football game. There were 4 rows of flutes. There were 12 rows of band members in all. How many band members in all were in rows? members

Understanding Fractions

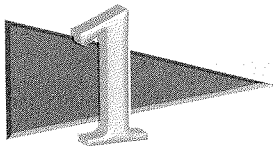


Some friends made a pizza. They cut it into 8 pieces of the same size. Write a fraction to show what part of the whole pizza 1 slice was.

Solve



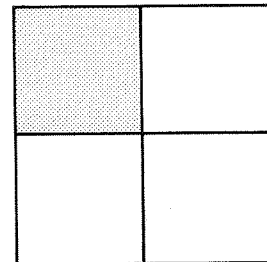
► Write a problem involving a fraction of something to eat.



Parts of a Whole

A **fraction** is a number that names equal parts of one whole.

What fraction of the square is green?



Step 1 Count the number of equal parts.
Write the number **below** the line.

$\frac{\quad}{4}$

Step 2 Count the number of green parts.
Write the number **above** the line.

$\frac{1}{4}$

$\frac{1}{4}$ of the square is green.

The top number of a fraction is the **numerator**.

The numerator tells us how many of the parts are counted.

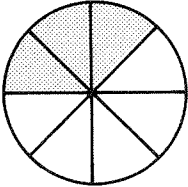
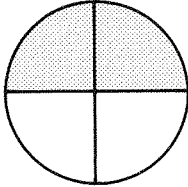
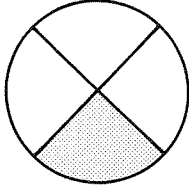
The bottom number of a fraction is the **denominator**.

The denominator tells the total number of parts in the whole.

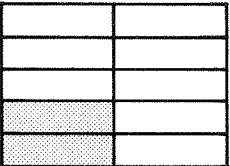
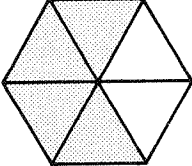
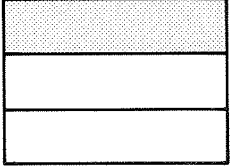
$\frac{1}{4}$ ← numerator
4 ← denominator

Guided Practice

► Write the denominator for each fraction.

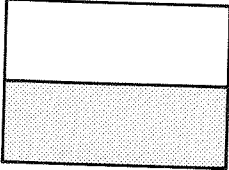

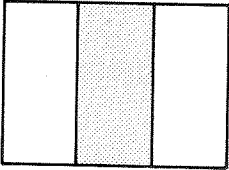

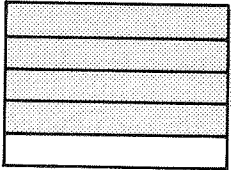

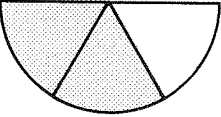

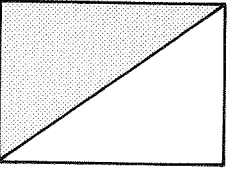

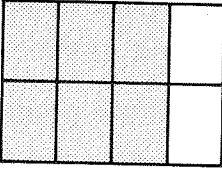

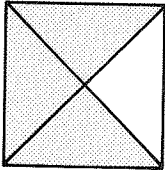

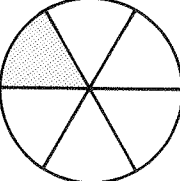

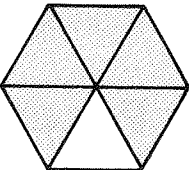
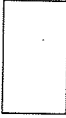
1.  $\frac{3}{\quad}$	2.  $\frac{2}{\quad}$	3.  $\frac{1}{\quad}$
--	--	--

► Write the numerator for each fraction.

4.  $\frac{\quad}{10}$	5.  $\frac{\quad}{6}$	6.  $\frac{\quad}{3}$
---	--	--

Practice

► Write a fraction in each box.

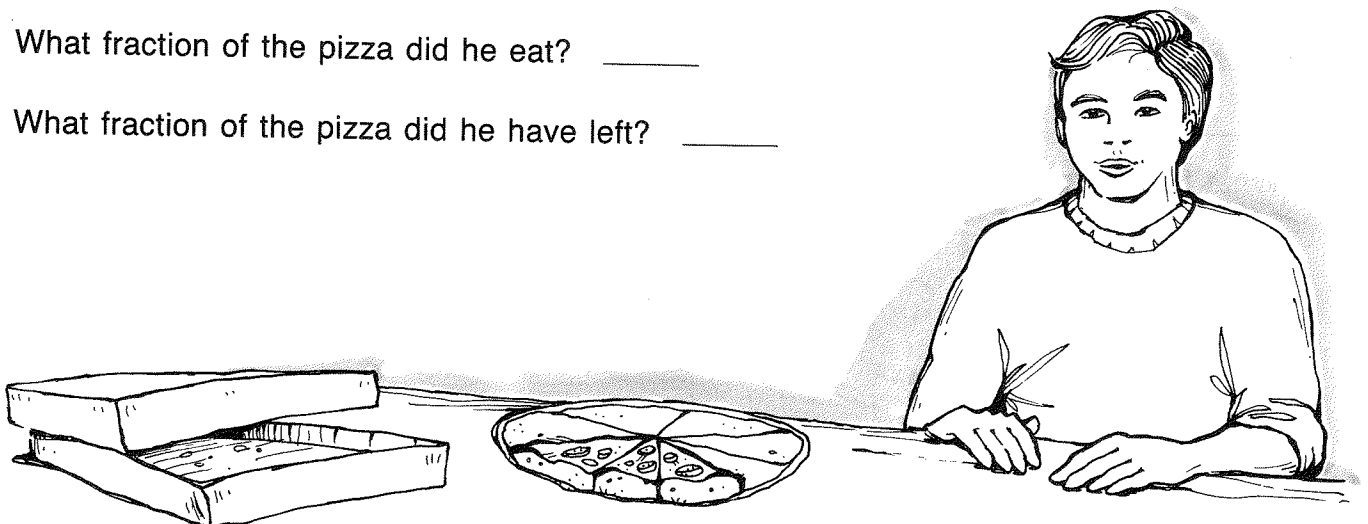
1.  	2.  	3.  
4.  	5.  	6.  
7.  	8.  	9.  

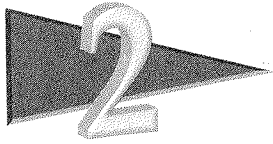
Using Math

► Michael ordered a pizza for dinner. It was cut in 8 equal pieces. Michael ate 5 pieces.

What fraction of the pizza did he eat? _____

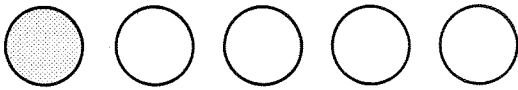
What fraction of the pizza did he have left? _____





Fractional Parts of a Group

You can write a fraction to name a part of a group.



What fraction of the group is green?

Step 1 Count the number in the group.
Write it as the denominator.

$\frac{\quad}{5}$

Step 2 Count the green circles.
Write it as the numerator.

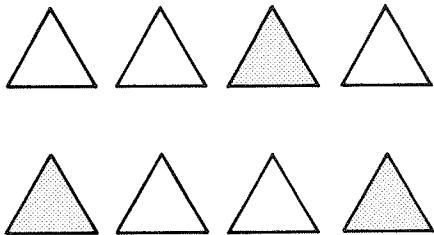
$\frac{1}{5}$

$\frac{1}{5}$ of the group is green.

Guided Practice

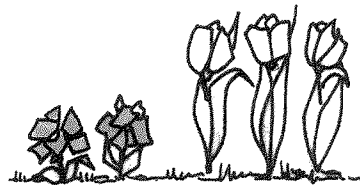
Write each fraction in the box to answer the question.

1. What fraction of the group is white?



$\frac{5}{8}$

2. What fraction of the flowers is tall?



3. What fraction of the money is dimes?



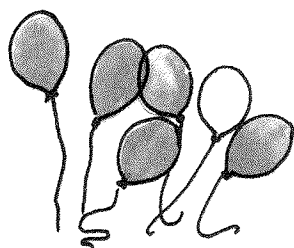
4. What fraction of the glasses is empty?



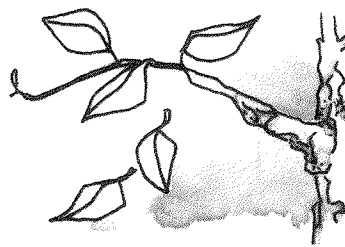
Practice

► Write each fraction in the box to answer the question.

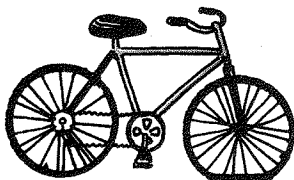
1. What fraction of the balloons is green?



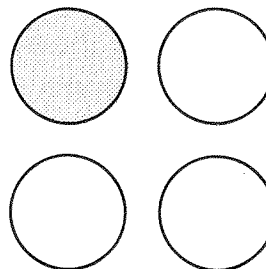
2. What fraction of the leaves is falling?



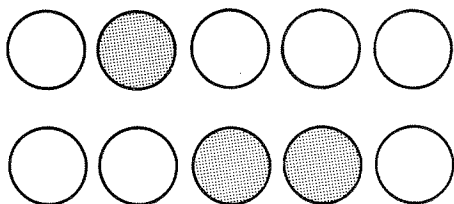
3. What fraction of the tires is flat?



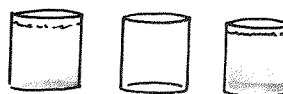
4. What fraction of the group is white?



5. What fraction of the group is gray?



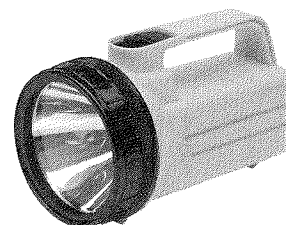
6. What fraction of the glasses is full?

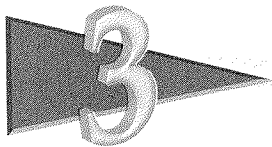


Using Math

► 12 Girl Scouts went on a hike. 7 girls brought flashlights on the hike. What fraction of the group brought flashlights?

_____ of the group brought flashlights.





Comparing Fractions

Which fraction is greater, $\frac{4}{5}$ or $\frac{2}{5}$?



$\frac{4}{5}$

Compare the fractions.

The denominators are the same.



$\frac{2}{5}$

There are more shaded parts in $\frac{4}{5}$ than $\frac{2}{5}$.

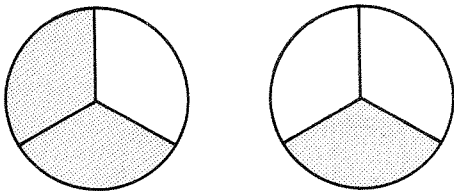
Since 4 is greater than 2, then $\frac{4}{5} > \frac{2}{5}$.

To compare fractions having the same denominator, you compare the numerators. The fraction with the greater numerator is the greater fraction.

Guided Practice

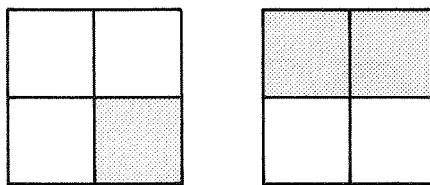
► Compare the fractions. Write $>$ or $<$ in the box.

1.



$\frac{2}{3} \boxed{>} \frac{1}{3}$

2.



$\frac{1}{4} \boxed{=} \frac{2}{4}$

3.

$\frac{2}{6} \boxed{=} \frac{4}{6}$

4.

$\frac{5}{8} \boxed{=} \frac{4}{8}$

5.

$\frac{5}{10} \boxed{=} \frac{3}{10}$

6.

$\frac{1}{7} \boxed{=} \frac{6}{7}$

7.

$\frac{1}{5} \boxed{=} \frac{4}{5}$

8.

$\frac{5}{9} \boxed{=} \frac{4}{9}$

Practice

► Compare the fractions. Write $>$ or $<$ in the box.

1. $\frac{1}{4} \square \frac{2}{4}$	2. $\frac{3}{5} \square \frac{2}{5}$	3. $\frac{7}{8} \square \frac{1}{8}$
4. $\frac{6}{10} \square \frac{7}{10}$	5. $\frac{5}{6} \square \frac{1}{6}$	6. $\frac{1}{3} \square \frac{2}{3}$
7. $\frac{10}{12} \square \frac{5}{12}$	8. $\frac{3}{6} \square \frac{5}{6}$	9. $\frac{4}{5} \square \frac{2}{5}$
10. $\frac{5}{8} \square \frac{3}{8}$	11. $\frac{1}{8} \square \frac{2}{8}$	12. $\frac{5}{7} \square \frac{3}{7}$
13. $\frac{3}{4} \square \frac{1}{4}$	14. $\frac{7}{9} \square \frac{8}{9}$	15. $\frac{10}{12} \square \frac{1}{12}$

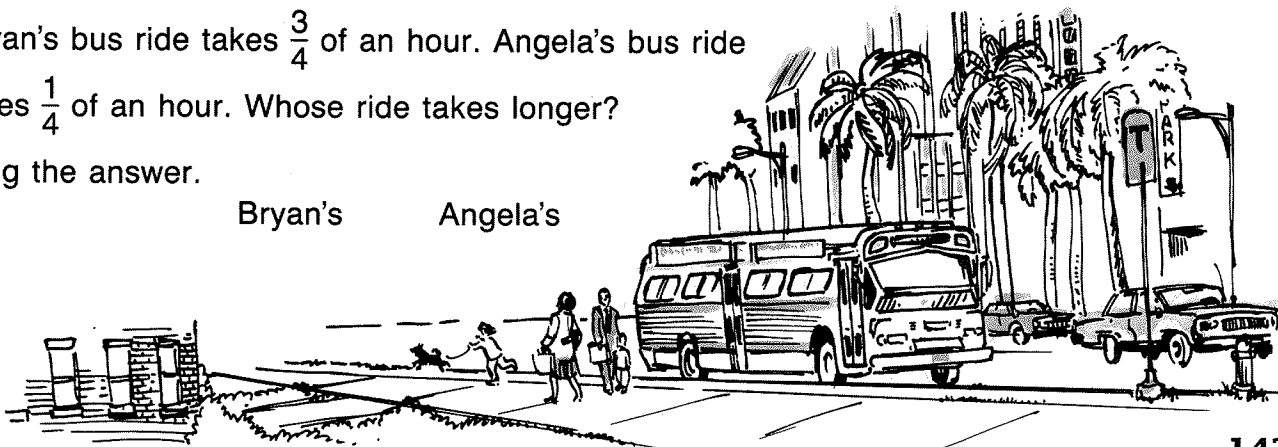
Using Math

► Bryan's bus ride takes $\frac{3}{4}$ of an hour. Angela's bus ride takes $\frac{1}{4}$ of an hour. Whose ride takes longer?

Ring the answer.

Bryan's

Angela's



4

Finding Equivalent Fractions

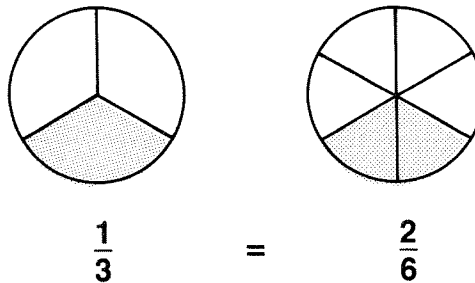
Equivalent fractions are fractions that are equal.

$$\begin{array}{|c|c|} \hline \frac{1}{2} & \frac{1}{2} \\ \hline \end{array} \quad \frac{1}{2} \text{ green}$$

$$\begin{array}{|c|c|c|c|} \hline \frac{1}{4} & \frac{1}{4} & \frac{1}{4} & \frac{1}{4} \\ \hline \end{array} \quad \frac{2}{4} \text{ green} \quad \frac{1}{2} = \frac{2}{4} = \frac{4}{8}$$

$$\begin{array}{|c|c|c|c|c|c|c|c|} \hline \frac{1}{8} & \frac{1}{8} & \frac{1}{8} & \frac{1}{8} & \frac{1}{8} & \frac{1}{8} & \frac{1}{8} & \frac{1}{8} \\ \hline \end{array} \quad \frac{4}{8} \text{ green}$$

Look at the two circles. The same part of each circle is green. The fractions are equivalent.



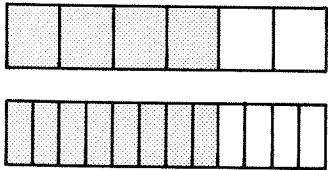
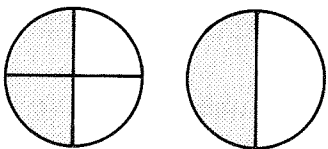
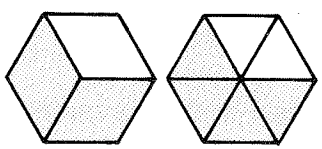
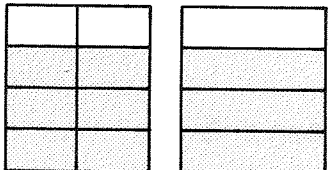
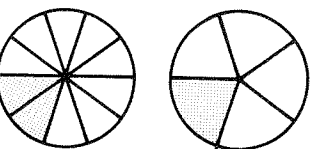
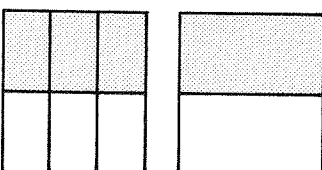
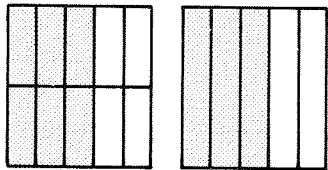
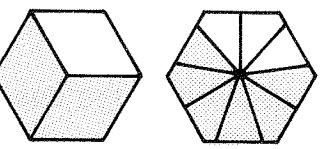
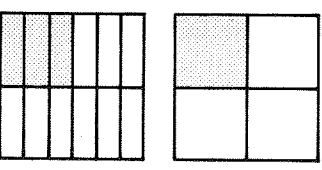
Guided Practice

► Write an equivalent fraction in the box.

<p>1.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> </div> <div style="text-align: center; margin-top: 20px;"> $\frac{2}{8} =$ <div style="border: 1px solid black; display: inline-block; padding: 5px 10px; min-width: 40px;"> $\frac{1}{4}$ </div> </div>	<p>2.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> </div> <div style="text-align: center; margin-top: 20px;"> $\frac{1}{2} =$ <div style="border: 1px solid black; display: inline-block; width: 40px; height: 40px; vertical-align: middle;"></div> </div>	<p>3.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> </div> <div style="text-align: center; margin-top: 20px;"> $\frac{3}{9} =$ <div style="border: 1px solid black; display: inline-block; width: 40px; height: 40px; vertical-align: middle;"></div> </div>
--	---	---

Practice

► Write an equivalent fraction in the box.

<p>1. </p> <p>$\frac{4}{6} =$ <input type="text"/></p>	<p>2. </p> <p>$\frac{2}{4} =$ <input type="text"/></p>	<p>3. </p> <p>$\frac{2}{3} =$ <input type="text"/></p>
<p>4. </p> <p>$\frac{6}{8} =$ <input type="text"/></p>	<p>5. </p> <p>$\frac{2}{10} =$ <input type="text"/></p>	<p>6. </p> <p>$\frac{3}{6} =$ <input type="text"/></p>
<p>7. </p> <p>$\frac{6}{10} =$ <input type="text"/></p>	<p>8. </p> <p>$\frac{2}{3} =$ <input type="text"/></p>	<p>9. </p> <p>$\frac{3}{12} =$ <input type="text"/></p>

Problem Solving

► Cross out the fact you do not need.

Then solve the problem.

Alfonso bought 4 packs of baseball cards. He bought 6 packs of football cards. There were 6 cards in each pack.

How many football cards did Alfonso buy?

_____ cards

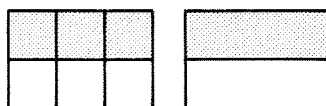


Maths

Fractions in Lowest Terms

You can find equivalent fractions by dividing both the numerator and the denominator by the same number.

$$\frac{3}{6} = \frac{3 \div 3}{6 \div 3} = \frac{1}{2}$$



$$\frac{3}{6} = \frac{1}{2}$$

A fraction is in **lowest terms** if the numerator and denominator can only be divided by 1.

$$\frac{1}{2} = \frac{1 \div 1}{2 \div 1} = \frac{1}{2} \quad \text{The fraction } \frac{1}{2} \text{ is in lowest terms.}$$

Guided Practice

► Write an equivalent fraction in lowest terms in the box.

<p>1.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> </div> <div style="text-align: center; margin-top: 20px;"> $\frac{6}{8} = \frac{6 \div 2}{8 \div 2} = \frac{\boxed{3}}{\boxed{4}}$ </div>	<p>2.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> </div> <div style="text-align: center; margin-top: 20px;"> $\frac{4}{10} = \frac{4 \div 2}{10 \div 2} = \boxed{}$ </div>	
<p>3.</p> <div style="text-align: center;"> $\frac{3}{12} = \frac{3 \div 3}{12 \div 3} = \boxed{}$ </div>	<p>4.</p> <div style="text-align: center;"> $\frac{6}{9} = \frac{6 \div 3}{9 \div 3} = \boxed{}$ </div>	<p>5.</p> <div style="text-align: center;"> $\frac{8}{16} = \frac{8 \div 8}{16 \div 8} = \boxed{}$ </div>

Practice

► Write an equivalent fraction in lowest terms in the box.

1. $\frac{15}{20} = \frac{15 \div 5}{20 \div 5} =$ <input type="text"/>	2. $\frac{5}{10} = \frac{5 \div 5}{10 \div 5} =$ <input type="text"/>	3. $\frac{8}{12} = \frac{8 \div 4}{12 \div 4} =$ <input type="text"/>
4. $\frac{2}{8} = \frac{2 \div 2}{8 \div 2} =$ <input type="text"/>	5. $\frac{4}{8} = \frac{4 \div 4}{8 \div 4} =$ <input type="text"/>	6. $\frac{2}{6} = \frac{2 \div 2}{6 \div 2} =$ <input type="text"/>
7. $\frac{12}{14} = \frac{12 \div 2}{14 \div 2} =$ <input type="text"/>	8. $\frac{9}{27} = \frac{9 \div 9}{27 \div 9} =$ <input type="text"/>	9. $\frac{2}{12} = \frac{2 \div 2}{12 \div 2} =$ <input type="text"/>
10. $\frac{3}{15} = \frac{3 \div 3}{15 \div 3} =$ <input type="text"/>	11. $\frac{7}{21} = \frac{7 \div 7}{21 \div 7} =$ <input type="text"/>	12. $\frac{8}{10} = \frac{8 \div 2}{10 \div 2} =$ <input type="text"/>
13. $\frac{9}{12} = \frac{9 \div 3}{12 \div 3} =$ <input type="text"/>	14. $\frac{6}{18} = \frac{6 \div 6}{18 \div 6} =$ <input type="text"/>	15. $\frac{10}{24} = \frac{10 \div 2}{24 \div 2} =$ <input type="text"/>

Using Math

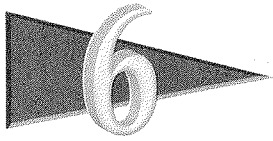
► The race was 4 laps around the track.
After 2 laps, Lee's car had a flat tire.

What fraction of the race did he finish? _____

What is the equivalent fraction in lowest terms? _____

Work here.		
<input type="text"/>	$= \frac{\text{□}}{\text{□}} \div \frac{2}{2} =$	<input type="text"/>

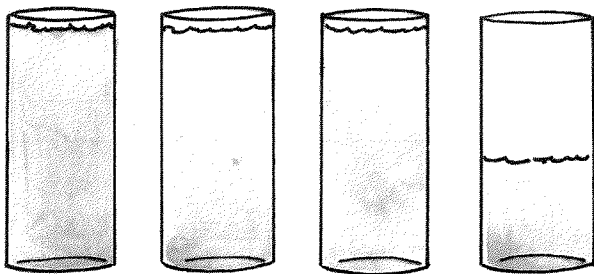




add whole number and fraction

Mixed Numbers

$3\frac{1}{2}$ is a **mixed number**. A mixed number is a whole number and a fraction.



There are three full glasses of juice and $\frac{1}{2}$ glass of juice. The mixed number is written $3\frac{1}{2}$ glasses of juice.

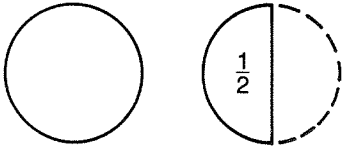
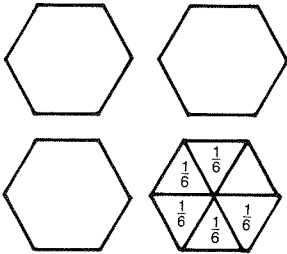
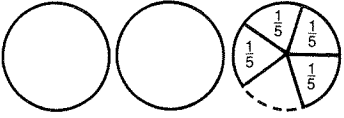
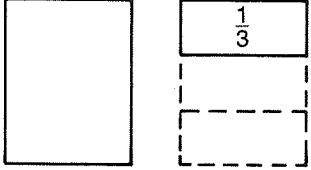
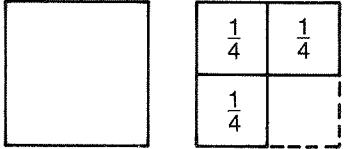
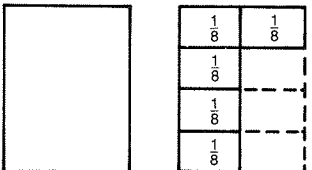
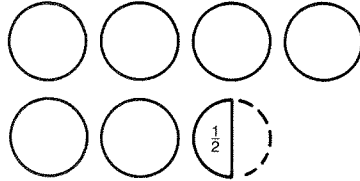
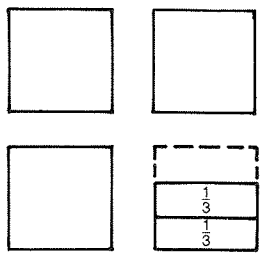
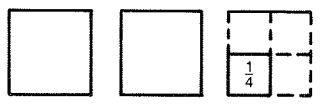
Guided Practice

► Write a mixed number for each picture.

<p>1.</p> <p><u>$1\frac{2}{3}$</u></p>	<p>2.</p> <p>_____</p>	<p>3.</p> <p>_____</p>
<p>4.</p> <p>_____</p>	<p>5.</p> <p>_____</p>	<p>6.</p> <p>_____</p>

Practice

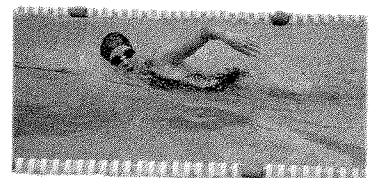
► Write a mixed number for each picture.

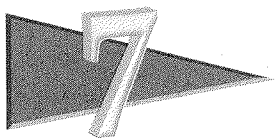
<p>1.</p>  <p>_____</p>	<p>2.</p>  <p>_____</p>	<p>3.</p>  <p>_____</p>
<p>4.</p>  <p>_____</p>	<p>5.</p>  <p>_____</p>	<p>6.</p>  <p>_____</p>
<p>7.</p>  <p>_____</p>	<p>8.</p>  <p>_____</p>	<p>9.</p>  <p>_____</p>

Using Math

► Margaret was swimming laps. A lap is one time across the pool. Margaret swam across the pool 4 times. Then she swam $\frac{1}{2}$ way across the pool and stopped. How many laps did Margaret swim?

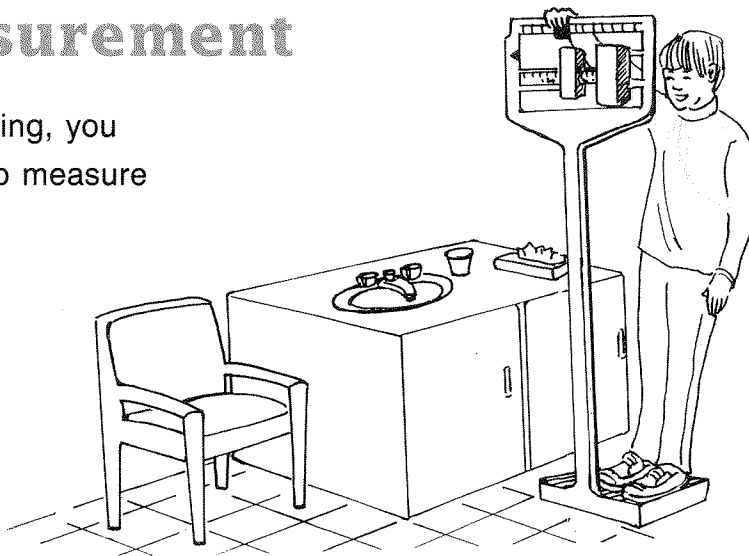
Margaret swam _____ laps.





Choosing Measurement

Before you can measure something, you must decide whether you want to measure its length, capacity, or weight.



Customary Measurement

Length	Capacity	Weight
inches feet	cups pints quarts	ounces pounds

Metric Measurement

Length	Capacity	Weight
centimeters meters	milliliters liters	grams kilograms

Guided Practice

► Ring the word that completes each sentence.

1. To measure the amount of milk for a recipe use _____. cups inches
2. To measure the weight of a cat use _____. centimeters kilograms
3. To measure the length of a room use _____. feet quarts
4. To measure the length of your finger use _____. milliliters centimeters
5. To measure the amount of water in a swimming pool use _____. liters kilograms

Practice

► Ring the word that completes each sentence.

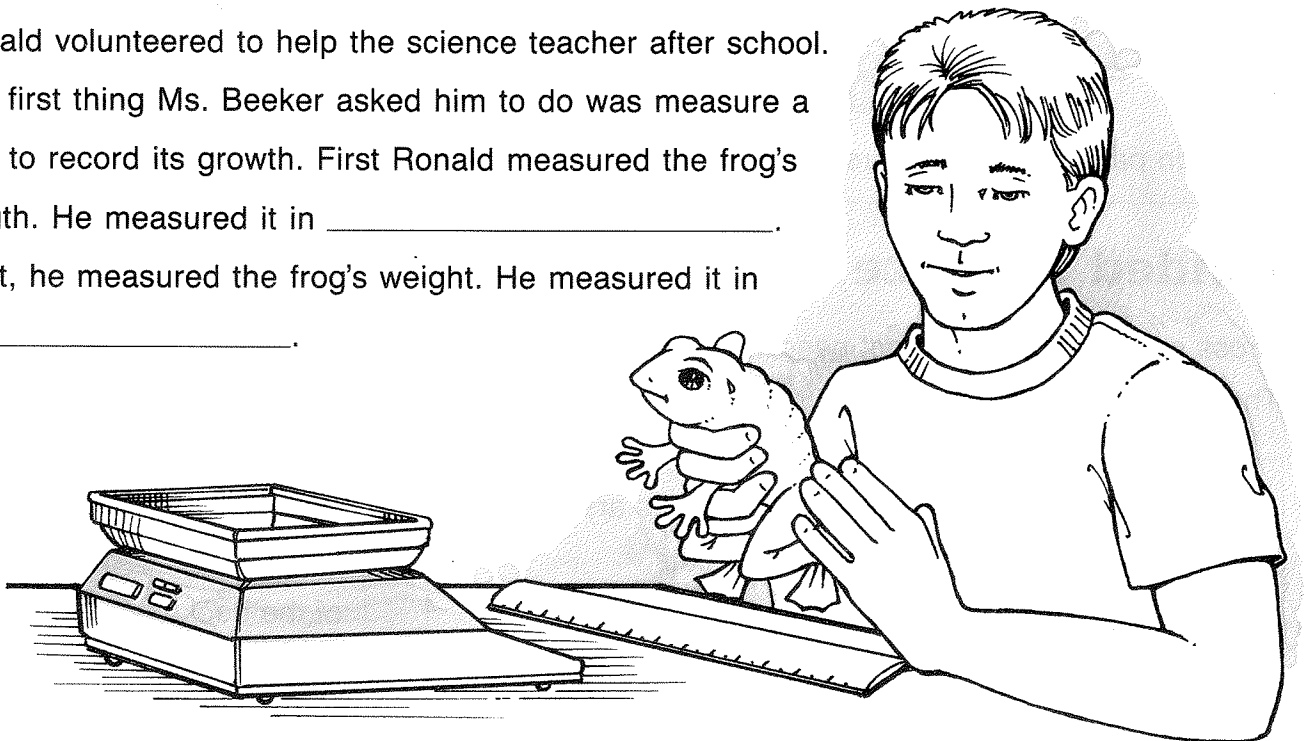
1. To measure the weight of a baby use _____. pounds pints
2. To measure the height of a door use _____. liters meters
3. To measure the amount of milk you will drink at lunch use _____. pints meters
4. To measure the length of a shoestring use _____. ounces inches
5. To measure formula for a baby's bottle use _____. centimeters milliliters
6. To measure the amount of orange juice in a pitcher use _____. quarts pounds
7. To weigh a letter use _____. ounces pints
8. To weigh a hamster use _____. meters grams

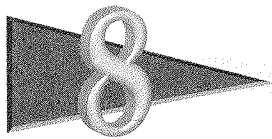
Using Math

► Ronald volunteered to help the science teacher after school.

The first thing Ms. Beeker asked him to do was measure a frog to record its growth. First Ronald measured the frog's length. He measured it in _____.

Next, he measured the frog's weight. He measured it in _____.





Problem Solving

Identify Extra Information

Sometimes a problem gives you more information than you need to solve it.

John painted 8 model cars.
He painted 3 cars red. He painted
5 cars blue. What fraction of the
cars are red?

Step 1 Find the **facts you need**.

John painted 8 model cars.

He painted 3 cars red.

Step 2 Cross out the **fact you do not need**.

~~He painted 5 cars blue.~~

Step 3 Solve the problem.

3 cars are red

8 cars in all

3

John painted 8 of the cars red.

Guided Practice

► Cross out the fact you do not need.

Then solve the problem.

1. Carl bought 6 books. 2 of Carl's books are about horses. 4 books are about cats.
What fraction of books are about cats?



of the books

Practice

- Cross out the fact you do not need.
Then solve the problem.

1. Oscar cut a pizza into 9 slices.

He ate 4 slices of pizza. He gave
a friend 5 slices of pizza. What
fraction of pizza did Oscar eat?

of the pizza

2. Terry made 12 sandwiches. 5 of the
sandwiches were turkey. 7 of the
sandwiches were ham. What fraction of sandwiches
were ham?

of the sandwiches

3. Tru has 7 friends coming over.

Tru made a pie and cut it into 8 pieces.
She ate 1 piece. What fraction of the pie
did Tru eat?

of the pie

4. Jack baked 8 cakes. 5 of the cakes
were chocolate and 3 of the cakes were white.
What fraction of cakes Jack baked
were chocolate?

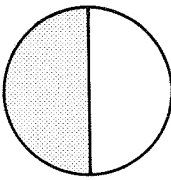

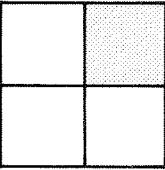
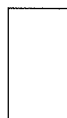
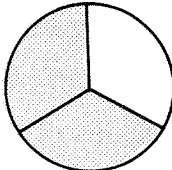

of the cakes

5. Rosa had 8 chocolate chip cookies. She had
5 oatmeal cookies. She ate 3 oatmeal cookies.
What fraction of oatmeal cookies did Rosa eat?

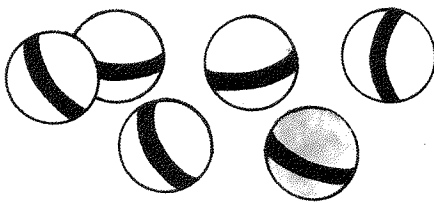

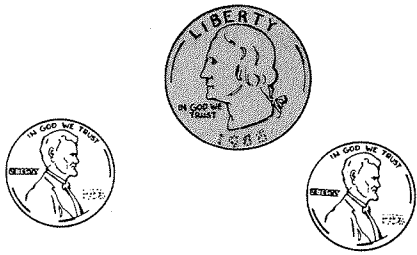
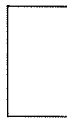
of the oatmeal cookies

CHAPTER 7 Review




► Write a fraction in each box. pages 138–139

1.  	2.  	3.  
--	--	--

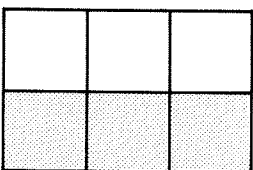
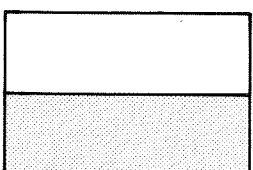

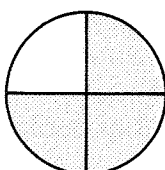
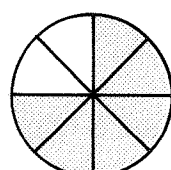

► Write a fraction in the box to answer the question. pages 140–141

4. What fraction of the balls is white?  	5. What fraction of the money is pennies?  
--	---

► Compare the fractions. Write $>$ or $<$ in the box. pages 142–143

6. $\frac{3}{5}$  $\frac{1}{5}$	7. $\frac{3}{7}$  $\frac{4}{7}$	8. $\frac{6}{8}$  $\frac{3}{8}$
--	--	--

► Write an equivalent fraction in the box. pages 144–145

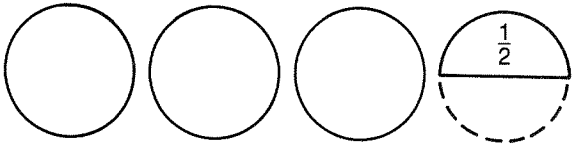
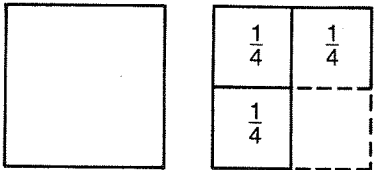
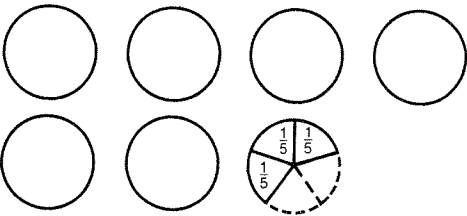
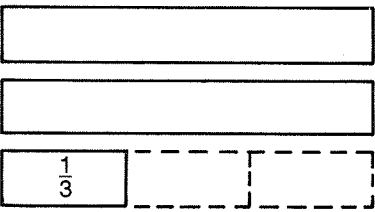
9.   $\frac{3}{6} =$ 	10.   $\frac{3}{4} =$ 
---	---

CHAPTER 7 Review

► Write an equivalent fraction in lowest terms in the box. pages 146–147

11. $\frac{8}{12} = \frac{8 \div 4}{12 \div 4} =$ <input type="text"/>	12. $\frac{3}{12} = \frac{3 \div 3}{12 \div 3} =$ <input type="text"/>	13. $\frac{2}{16} = \frac{2 \div 2}{16 \div 2} =$ <input type="text"/>
---	---	---

► Write a mixed number for each picture. pages 148–149

14.  _____	15.  _____
16.  _____	17.  _____

► Ring the word that completes each sentence. pages 150–151

- To measure the height of a tree use _____. meters liters
- To measure the weight of a necklace use _____. cups ounces
- To measure the amount of water to make gravy use _____. cups feet
- To measure the length of a clothes line use _____. pounds feet

CHAPTER 7 Review

► Cross out the fact you do not need.

Then solve the problem. pages 152–153

22. Kenya has 8 fish. She has 3 angelfish.

She has 5 goldfish. What fraction of
Kenya's fish are angelfish?

of the fish

23. Glenn has 4 pets. He has 1 dog.

He has 3 cats. What fraction of
Glenn's pets are cats?

of the pets

24. Rico has 12 rabbits. 2 of the
rabbits are fully grown. 10 of the
rabbits are babies. What fraction
of Rico's rabbits are babies?

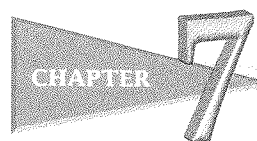
of the rabbits

25. Ms. King has 5 horses. 2 horses
are black. 3 horses are brown. What fraction
of Ms. King's horses are black?

of the horses

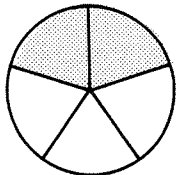

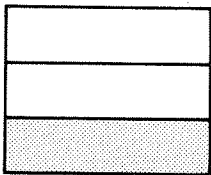

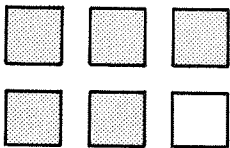
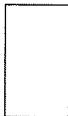
26. Becky had 9 parrots. She sold
3 parrots. She kept 6 parrots.
What fraction of her parrots did
Becky sell?

of the parrots






Test

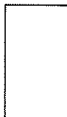


► Write a fraction in each box to name the green part.

1.  	2.  	3.  
--	---	--

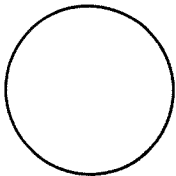
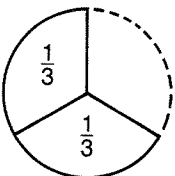




► Compare the fractions. Write $>$ or $<$ in the box.

4. $\frac{1}{3}$  $\frac{2}{3}$	5. $\frac{5}{6}$  $\frac{4}{6}$	6. $\frac{1}{10}$  $\frac{7}{10}$
--	--	--

► Write an equivalent fraction in lowest terms in the box.

7. $\frac{2}{4} = \frac{2 \div 2}{4 \div 2} =$ 	8. $\frac{5}{10} = \frac{5 \div 5}{10 \div 5} =$ 	9. $\frac{12}{16} = \frac{12 \div 4}{16 \div 4} =$ 
--	--	--

► Write a mixed number for each picture.

10.   _____	11.     _____
---	--

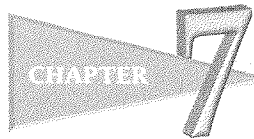
► Ring the word that completes each sentence.

12. To measure the weight of a sack of dog food use ____.

quarts pounds

13. To measure the amount of orange juice needed to make punch use ____.

kilograms liters



Test

- Cross out the fact you do not need.
Then solve the problem.

14. Clara made 10 pizzas. 7 pizzas
were made with pepperoni. 3 pizzas
were made with sausage. What fraction
of pizzas were made with pepperoni?

of the pizzas

15. Rubin bought 12 doughnuts.
6 doughnuts were plain. 6 doughnuts
were cherry. What fraction of
doughnuts were plain?

of the doughnuts

16. Carl made 9 breadsticks. He ate
4 breadsticks. He gave 5 breadsticks
to friends. What fraction of breadsticks
did Carl give away?

of the breadsticks

17. Rita bought 4 apples. She ate 1.
She saved 3 apples to eat later.
What fraction of apples did Rita eat?

of the apples

18. Sam baked 7 muffins. He gave
4 muffins to his teacher. He gave
3 muffins to a friend. What fraction
of muffins did Sam's friend get?

of the muffins

CHAPTER 4

Cumulative Review

► Write each decimal. pages 72–75

1. 1 and 5 tenths = _____

2. 3 and 4 hundredths = _____

► Compare the decimals. Write $>$ or $<$. pages 76–77

3. 0.3 _____ 0.5

4. 5.6 _____ 5.5

5. 7.06 _____ 7.09

► Add. pages 78–79

6. $\begin{array}{r} 4.19 \\ + 3.43 \\ \hline \end{array}$	7. $\begin{array}{r} 8.42 \\ + 2.84 \\ \hline \end{array}$	8. $\begin{array}{r} 9.03 \\ + 2.32 \\ \hline \end{array}$	9. $\begin{array}{r} 45.83 \\ + 16.25 \\ \hline \end{array}$	10. $\begin{array}{r} 54.93 \\ + 27.84 \\ \hline \end{array}$
---	---	---	---	--

► Subtract. pages 80–81

11. $\begin{array}{r} 9.64 \\ - 4.41 \\ \hline \end{array}$	12. $\begin{array}{r} 3.85 \\ - 0.14 \\ \hline \end{array}$	13. $\begin{array}{r} 28.86 \\ - 10.69 \\ \hline \end{array}$	14. $\begin{array}{r} 63.25 \\ - 28.37 \\ \hline \end{array}$	15. $\begin{array}{r} 40.25 \\ - 13.93 \\ \hline \end{array}$
--	--	--	--	--

► Write the zeros. Then add or subtract. pages 82–83

16. $\begin{array}{r} 4.41 \\ + 1.4 \\ \hline \end{array}$	17. $\begin{array}{r} 2.6 \\ + 4.28 \\ \hline \end{array}$	18. $\begin{array}{r} 29.8 \\ + 13.62 \\ \hline \end{array}$	19. $\begin{array}{r} 47.5 \\ - 14.28 \\ \hline \end{array}$	20. $\begin{array}{r} 8 \\ - 3.76 \\ \hline \end{array}$
---	---	---	---	---

► Ring the unit of measure you would use. pages 84–85

21. a pitcher of lemonade milliliter liter	22. milk in a cup milliliter liter
--	--

► Write each decimal. pages 94–95

1. 3 and 6 tenths = _____

2. 4 and 5 thousandths = _____

3. 324 thousandths = _____

4. 7 and 5 hundredths = _____

► Multiply.

pages 96–99

5.
$$\begin{array}{r} 3.7 \\ \times 4 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 6.4 \\ \times 3 \\ \hline \end{array}$$

7.
$$\begin{array}{r} 0.9 \\ \times 0.5 \\ \hline \end{array}$$

8.
$$\begin{array}{r} 8.4 \\ \times 2.9 \\ \hline \end{array}$$

9.
$$\begin{array}{r} 4.6 \\ \times 3.4 \\ \hline \end{array}$$

pages 100–103

10.
$$\begin{array}{r} 4.93 \\ \times 4.2 \\ \hline \end{array}$$

11.
$$\begin{array}{r} 8.46 \\ \times 6.5 \\ \hline \end{array}$$

12.
$$\begin{array}{r} 0.03 \\ \times 2 \\ \hline \end{array}$$

13.
$$\begin{array}{r} 0.3 \\ \times 0.3 \\ \hline \end{array}$$

14.
$$\begin{array}{r} 0.04 \\ \times 0.6 \\ \hline \end{array}$$

pages 104–105

15. $10 \times 8.5 =$ _____

16. $100 \times 6.75 =$ _____

17. $1,000 \times 7.813 =$ _____

18. $1,000 \times 4.621 =$ _____

19. $10 \times 100.7 =$ _____

20. $100 \times 0.98 =$ _____

► Ring the word that completes each sentence. pages 106–107

21. A bag of apples weighs 5 _____. ounces pounds

22. A wedding ring weighs 2 _____. ounces pounds

CHAPTERS **4-5** Cumulative Review

► Use two steps to solve.
pages 86–87

- Javier had \$8.14. He earned \$12.00 helping at Mr. Webber's store. Then he paid \$7.25 for a haircut. How much money did Javier have then?
- Abby bought a roll of film for \$2.69 and a magazine for \$2.50. She gave the sales clerk \$10.00. How much change did Abby get back?

Step 1	Step 2
_____	_____
_____	_____

► Ring the correct problem. pages 108–109

- All the sixth-graders at Feldman Middle School are going on a field trip. 210 students and teachers will go. Each bus will carry 42 people. How many buses will they need?

$$\begin{array}{r} 210 \\ + 42 \\ \hline 252 \end{array} \text{ buses}$$

$$\begin{array}{r} 210 \\ - 42 \\ \hline 168 \end{array} \text{ buses}$$

$$\begin{array}{r} 210 \\ \times 42 \\ \hline 8,820 \end{array} \text{ buses}$$

$$42 \overline{) 210} \begin{array}{l} 5 \text{ buses} \end{array}$$

- Ms. Macelli bought 7 tickets to the theme park. Each ticket cost \$28. How much money in all did Ms. Macelli spend on tickets?

$$\begin{array}{r} \$28 \\ + 7 \\ \hline \$35 \end{array} \text{ in all}$$

$$\begin{array}{r} \$28 \\ - 7 \\ \hline \$ 21 \end{array} \text{ in all}$$

$$\begin{array}{r} \$28 \\ \times 7 \\ \hline \$196 \end{array} \text{ in all}$$

$$7 \overline{) \$28} \begin{array}{l} \$4 \text{ in all} \end{array}$$

► Divide.

pages 116–119 1. $5 \overline{)25.5}$	2. $3 \overline{)18.6}$	3. $7 \overline{)47.04}$	4. $8 \overline{)42.08}$
pages 120–125 5. $2 \overline{)1.38}$	6. $6 \overline{)0.576}$	7. $4 \overline{)9}$	8. $4 \overline{)1.7}$

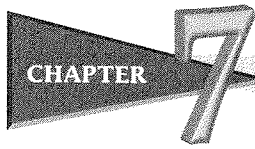
► Divide. Then check your answer by multiplying. pages 126–127

9. $815 \div 1,000 = \underline{\hspace{2cm}}$ $1,000 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$	10. $76.42 \div 10 = \underline{\hspace{2cm}}$ $10 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$
11. $7 \div 10 = \underline{\hspace{2cm}}$ $10 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$	12. $324 \div 100 = \underline{\hspace{2cm}}$ $100 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

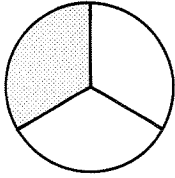

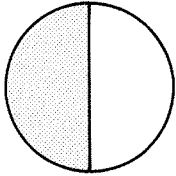

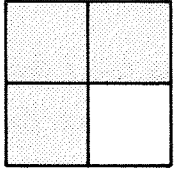

► Ring the word that completes each sentence. pages 128–129

13. A dime weighs 2 _____. grams kilograms




14. A book weighs 1 _____. gram kilogram






► Write a fraction in each box to name the green part. pages 138–141

1.  	2.  	3.  
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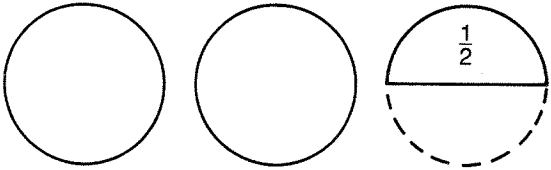
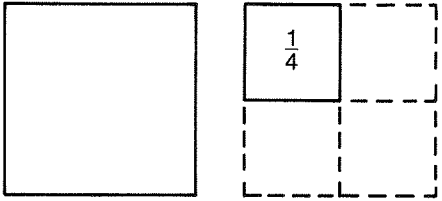
► Compare the fractions. Write $>$ or $<$ in the box. pages 142–143

4. $\frac{4}{7}$  $\frac{3}{7}$	5. $\frac{2}{5}$  $\frac{4}{5}$	6. $\frac{7}{9}$  $\frac{6}{9}$
--	--	--

► Write an equivalent fraction in lowest terms in the box. pages 144–147

7. $\frac{9}{12} = \frac{9 \div 3}{12 \div 3} =$ 	8. $\frac{6}{12} = \frac{6 \div 6}{12 \div 6} =$ 	9. $\frac{10}{15} = \frac{10 \div 5}{15 \div 5} =$ 
--	---	--

► Write a mixed number for each picture. pages 148–149

10.  _____	11.  _____
---	--

► Ring the word that completes each sentence. pages 150–151

12. To measure the length of a house use _____. liters meters

13. To weigh a young child use _____. pounds quarts

- Cross out the fact you do not need.

Then solve the problem. pages 130–131

1. Mike works out 7 days a week. He runs 4 miles each day. Then he lifts weights for 30 minutes. How many miles does Mike run each week?

_____ miles

2. Kelly babysits 4 days a week. She works 3 hours each day. She earns \$3 an hour. How much money does Kelly earn babysitting in one day?

_____ a day

- Cross out the fact you do not need.

Then solve the problem. pages 152–153

3. There are 276 pages in a book. There are 10 chapters in the book. Leroy read 7 chapters. What fraction of chapters has Leroy read?

of the chapters

4. Mr. Andrews has 12 red roses. He has 9 yellow roses. He put 6 red roses in a vase. What fraction of red roses are in the vase?

of the red roses

5. Marta has 8 baseball cards. 3 of the baseball cards are autographed. She also has 5 basketball cards that are autographed. What fraction of baseball cards have autographs?

of the baseball cards

CHAPTER 1 Extra Practice

► Complete the expanded form of each number. pages 2–3

1. $83,678 = 80,000 + \underline{\hspace{2cm}} + 600 + \underline{\hspace{2cm}} + 8$

2. $238,412 = 200,000 + \underline{\hspace{2cm}} + 8,000 + \underline{\hspace{2cm}} + 10 + \underline{\hspace{2cm}}$

► Write the value of each underlined digit.

3. $78\underline{3},200$ _____

4. $\underline{6}45,370$ _____

► Add. pages 4–7

5. $\begin{array}{r} 63 \\ + 79 \\ \hline \end{array}$	6. $\begin{array}{r} 165 \\ + 497 \\ \hline \end{array}$	7. $\begin{array}{r} 4,365 \\ + 2,367 \\ \hline \end{array}$	8. $\begin{array}{r} 27,406 \\ + 19,593 \\ \hline \end{array}$
---	---	---	---

► Subtract. pages 8–11

9. $\begin{array}{r} 57 \\ - 28 \\ \hline \end{array}$	10. $\begin{array}{r} 629 \\ - 288 \\ \hline \end{array}$	11. $\begin{array}{r} 5,000 \\ - 3,496 \\ \hline \end{array}$	12. $\begin{array}{r} 60,000 \\ - 25,984 \\ \hline \end{array}$
---	--	--	--

► Round each number to the nearest ten. pages 12–13

13. 27 _____

14. 352 _____

► Round each number to the nearest hundred.

15. 742 _____

16. 1,695 _____

► Ring the unit of measure you would use. pages 14–15

17. the length of an airplane inch foot	18. the length of a whistle inch foot
---	---

► Multiply.

pages 24–27 1. $\begin{array}{r} 46 \\ \times 8 \\ \hline \end{array}$	2. $\begin{array}{r} 86 \\ \times 4 \\ \hline \end{array}$	3. $\begin{array}{r} 38 \\ \times 20 \\ \hline \end{array}$	4. $\begin{array}{r} 82 \\ \times 30 \\ \hline \end{array}$	5. $\begin{array}{r} 17 \\ \times 60 \\ \hline \end{array}$
pages 28–31 6. $\begin{array}{r} 54 \\ \times 12 \\ \hline \end{array}$	7. $\begin{array}{r} 89 \\ \times 19 \\ \hline \end{array}$	8. $\begin{array}{r} 74 \\ \times 18 \\ \hline \end{array}$	9. $\begin{array}{r} 25 \\ \times 34 \\ \hline \end{array}$	10. $\begin{array}{r} 36 \\ \times 32 \\ \hline \end{array}$
pages 32–35 11. $\begin{array}{r} 265 \\ \times 13 \\ \hline \end{array}$	12. $\begin{array}{r} 634 \\ \times 16 \\ \hline \end{array}$	13. $\begin{array}{r} 721 \\ \times 27 \\ \hline \end{array}$	14. $\begin{array}{r} 678 \\ \times 47 \\ \hline \end{array}$	15. $\begin{array}{r} 204 \\ \times 56 \\ \hline \end{array}$

► Ring the unit of measure you would use. pages 36–37

16. the length of a toothbrush centimeter meter	17. the length of an airplane wing centimeter meter
---	---

- Round to the nearest hundred.

Estimate to solve. pages 16–17

1. 678 people went to a jazz concert.

420 people stayed until the end of the concert. About how many people left during the concert?

$$\begin{array}{r} 678 \longrightarrow \\ - 420 \longrightarrow - \\ \hline \end{array}$$

about _____ people

2. There are 327 people sitting in a restaurant. There are 105 empty chairs. About how many seats in all does the restaurant have?

$$\begin{array}{r} 327 \longrightarrow \\ + 105 \longrightarrow + \\ \hline \end{array}$$

about _____ seats

- Round to the nearest hundred.

Estimate to solve. pages 38–39

3. There are 481 nails in one box.

Jeff has 5 boxes of nails.

About how many nails does Jeff have?

$$\begin{array}{r} 481 \longrightarrow \\ \times 5 \longrightarrow \times \\ \hline \end{array}$$

about _____ nails

4. There are 163 feet of ribbon on a bolt. There are 8 bolts on a shelf. About how many feet of ribbon are on that shelf?

$$\begin{array}{r} 163 \longrightarrow \\ \times 8 \longrightarrow \times \\ \hline \end{array}$$

about _____ feet

5. A hotel has 247 rooms. Each room sleeps 4 people. About how many people can sleep in the hotel?






$$\begin{array}{r} 247 \longrightarrow \\ \times 4 \longrightarrow \times \\ \hline \end{array}$$

about _____ people

► Divide.

pages 46–49 1. $3 \overline{)16}$	2. $7 \overline{)29}$	3. $3 \overline{)92}$	4. $2 \overline{)42}$
pages 50–53 5. $3 \overline{)73}$	6. $5 \overline{)75}$	7. $4 \overline{)209}$	8. $5 \overline{)384}$
pages 54–57 9. $30 \overline{)93}$	10. $20 \overline{)183}$	11. $27 \overline{)56}$	12. $51 \overline{)869}$

► Mark an X on the containers that equal the first one in the row. pages 58–59

13. 	   
--	---

Write each decimal. pages 72-75

1. 9 tenths = _____

2. 6 hundredths = _____

Compare the decimals. Write $>$ or $<$. pages 76-77

3. 0.8 _____ 0.2

4. 1.3 _____ 1.6

5. 6.87 _____ 6.89

Add. pages 78-79

6. $\begin{array}{r} 5.25 \\ + 4.14 \\ \hline \end{array}$	7. $\begin{array}{r} 8.62 \\ + 3.19 \\ \hline \end{array}$	8. $\begin{array}{r} 14.73 \\ + 2.65 \\ \hline \end{array}$	9. $\begin{array}{r} 27.94 \\ + 16.82 \\ \hline \end{array}$	10. $\begin{array}{r} 6.39 \\ + 7.44 \\ \hline \end{array}$
---	---	--	---	--

Subtract. pages 80-81

11. $\begin{array}{r} 3.86 \\ - 1.72 \\ \hline \end{array}$	12. $\begin{array}{r} 7.94 \\ - 3.82 \\ \hline \end{array}$	13. $\begin{array}{r} 16.93 \\ - 6.20 \\ \hline \end{array}$	14. $\begin{array}{r} 27.49 \\ - 13.74 \\ \hline \end{array}$	15. $\begin{array}{r} 96.08 \\ - 16.07 \\ \hline \end{array}$
--	--	---	--	--

Write the zeros. Then add or subtract. pages 82-83

16. $\begin{array}{r} 9.26 \\ + 1.3 \\ \hline \end{array}$	17. $\begin{array}{r} 26.2 \\ + 13.48 \\ \hline \end{array}$	18. $\begin{array}{r} 16.8 \\ - 9.25 \\ \hline \end{array}$	19. $\begin{array}{r} 29.93 \\ - 13.6 \\ \hline \end{array}$	20. $\begin{array}{r} 6.8 \\ - 1.27 \\ \hline \end{array}$
---	---	--	---	---

Ring the unit of measure you would use. pages 84-85

21. gasoline in a truck milliliter liter	22. grape juice in a cup milliliter liter
--	---

CHAPTERS 3-4 Extra Practice

► Use two steps to solve.
pages 60–61

1. There were 26 people working at a grocery store. At noon, 5 workers went home. Then 13 other people came to work. How many workers were in the store then?

Step 1	Step 2
_____	_____ people

2. The theater has 254 seats on the main floor section and 152 seats in the balcony. 383 people came to see a play. How many empty seats were there during that show?

_____	_____ empty seats
-------	-------------------

► Use two steps to solve.
pages 86–87

3. Dustin had \$7.85. He spent \$6.00 for a movie ticket. Then his aunt gave him \$5.00. How much money did Dustin have then?

Step 1	Step 2
_____	_____

4. Barb bought a salad for \$3.25 and a soda for \$1.19. She gave the sales clerk \$10.00. How much change did Barb get back?

_____	_____
-------	-------

5. Ms. Ashad paid \$34.31 for her softball uniform and \$39.95 for a new glove. Then she paid \$3.00 for the team dues. How much money in all did Ms. Ashad spend?

_____	_____
-------	-------

► Write each decimal. pages 94–95

1. 394 thousandths = _____

2. 6 and 45 thousandths = _____

3. 4 and 9 tenths = _____

4. 18 and 27 hundredths = _____

► Multiply.

pages 96–99

5.

$$\begin{array}{r} 0.4 \\ \times 8 \\ \hline \end{array}$$

6.

$$\begin{array}{r} 3.25 \\ \times 6 \\ \hline \end{array}$$

7.

$$\begin{array}{r} 8.7 \\ \times 0.3 \\ \hline \end{array}$$

8.

$$\begin{array}{r} 4.7 \\ \times 7.8 \\ \hline \end{array}$$

pages 100–103

9.

$$\begin{array}{r} 3.93 \\ \times 4.1 \\ \hline \end{array}$$

10.

$$\begin{array}{r} 6.42 \\ \times 4.6 \\ \hline \end{array}$$

11.

$$\begin{array}{r} 0.17 \\ \times 0.2 \\ \hline \end{array}$$

12.

$$\begin{array}{r} 0.03 \\ \times 2 \\ \hline \end{array}$$

pages 104–105

13. $10 \times 2.8 =$ _____

14. $100 \times 3.76 =$ _____

15. $1,000 \times 4.039 =$ _____

16. $100 \times 8.42 =$ _____

► Ring the word that completes each sentence. pages 106–107

17. Kathy weighs about 95 _____. ounces pounds

18. A pad of notepaper weighs 7 _____. ounces pounds

➤ Divide.

pages 116–119

1.

$$5 \overline{)45.5}$$

2.

$$4 \overline{)18.4}$$

3.

$$3 \overline{)20.94}$$

4.

$$6 \overline{)25.92}$$

pages 120–125

5.

$$6 \overline{)31.8}$$

6.

$$5 \overline{)50.25}$$

7.

$$8 \overline{)0.544}$$

8.

$$4 \overline{)5.3}$$

➤ Divide. Then check your answer by multiplying. pages 126–127

9.

$$68 \div 100 = \underline{\hspace{2cm}}$$

$$100 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

10.

$$27.4 \div 10 = \underline{\hspace{2cm}}$$

$$10 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

11.

$$106 \div 1,000 = \underline{\hspace{2cm}}$$

$$1,000 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

12.

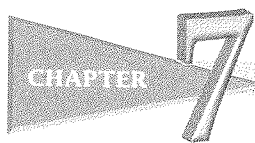
$$52 \div 10 = \underline{\hspace{2cm}}$$

$$10 \times \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$$

➤ Ring the word that completes each sentence. pages 128–129

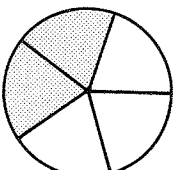

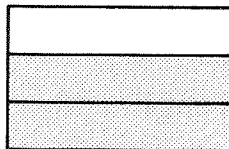

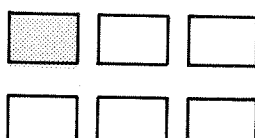

13. A radio weighs 1 _____. gram kilogram

14. Your *Mastering Math* book weighs 280 _____. grams kilograms






Extra Practice




- Write a fraction in each box to name the green part. pages 138–141

1.  	2.  	3.  
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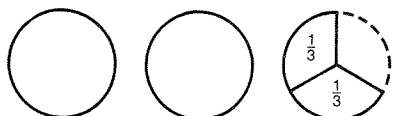
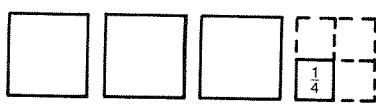
- Compare the fractions. Write $>$ or $<$ in the box. pages 142–143

4. $\frac{1}{4}$  $\frac{3}{4}$	5. $\frac{3}{8}$  $\frac{1}{8}$	6. $\frac{4}{9}$  $\frac{5}{9}$
--	--	--

- Write an equivalent fraction in lowest terms in the box. pages 144–147

7. $\frac{4}{6} = \frac{4 \div 2}{6 \div 2} =$ 	8. $\frac{6}{18} = \frac{6 \div 6}{18 \div 6} =$ 	9. $\frac{9}{12} = \frac{9 \div 3}{12 \div 3} =$ 
--	--	--

- Write a mixed number for each picture. pages 148–149

10.  _____	11.  _____
---	--

- Ring the word that completes each sentence. pages 150–151

12. To measure the amount of wood on a truck use ____.

kilograms liters

13. To measure the amount of water to cook rice use ____.

inches cups

CHAPTERS 5-7 Extra Practice

► Ring the correct problem. pages 108–109

1. There were 126 students going to an art show.
3 buses were hired to take the students.
How many students would ride on each bus?

$$\begin{array}{r} 126 \\ + 3 \\ \hline 129 \end{array} \text{ students}$$

$$\begin{array}{r} 126 \\ - 3 \\ \hline 123 \end{array} \text{ students}$$

$$\begin{array}{r} 126 \\ \times 3 \\ \hline 378 \end{array} \text{ students}$$

$$\begin{array}{r} 42 \\ 3 \overline{)126} \end{array} \text{ students}$$

2. Aldo's favorite music tape is 52 minutes long. He listened to the tape 4 times.
How many minutes did Aldo listen to the tape?

$$\begin{array}{r} 52 \\ + 4 \\ \hline 56 \end{array} \text{ minutes}$$

$$\begin{array}{r} 52 \\ - 4 \\ \hline 48 \end{array} \text{ minutes}$$

$$\begin{array}{r} 52 \\ \times 4 \\ \hline 208 \end{array} \text{ minutes}$$

$$\begin{array}{r} 13 \\ 4 \overline{)52} \end{array} \text{ minutes}$$

► Cross out the fact you do not need.

Then solve the problem. pages 130–131

3. Max works 30 hours each week. He works _____ hours a day
5 days a week. He plays soccer for 2 hours
each week. How many hours a day does Max work?

► Cross out the fact you do not need.

Then solve the problem. pages 152–153

4. There are 9 scouts in Mr. Barter's troop. 5 scouts
are wearing uniforms. 7 scouts came to the meeting.
What fraction of all the scouts came to the meeting?

of the scouts