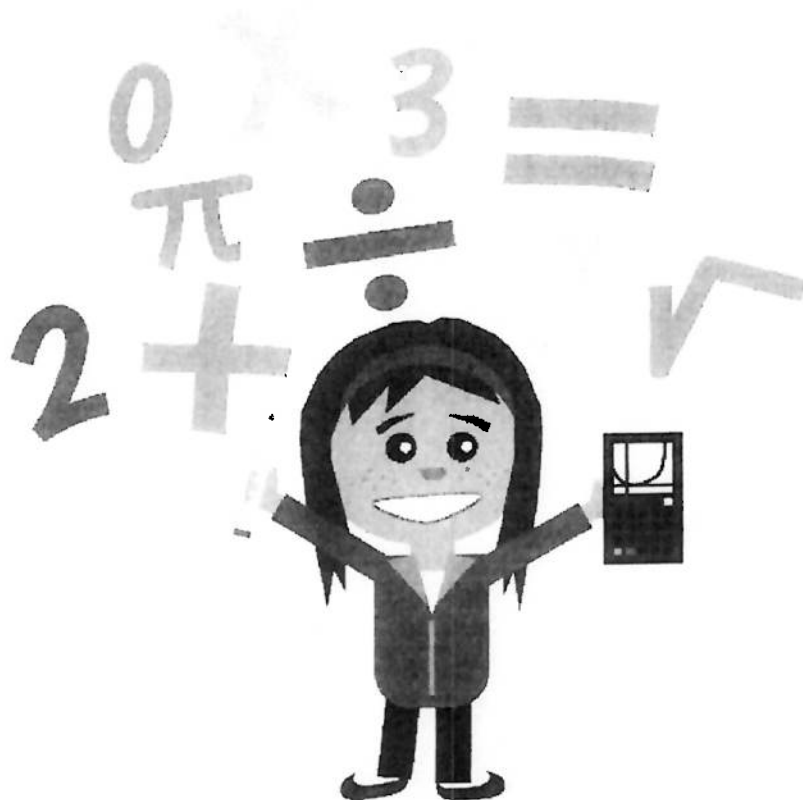


Dear Parents,

Attached is the math packet your child is to complete over the summer. It is a review of the various topics that have been taught this year in fourth grade. Please have your child return it to their homeroom teacher during the first week of school in the fall. This assignment will be their first math grade of the year. If you have any questions, please feel free to contact us! Have a great summer!

Thanks,

Mrs. Lukacs & Mrs. Tartamella



**BLACKLINES**

# PRACTICE BOOK



**Martha Ruttle**



**The MATH LEARNING CENTER**

B4PB-B

NAME \_\_\_\_\_

DATE \_\_\_\_\_

# Multi-Digit Addition Review

1 Solve the problems below. Show all your work.

$$\begin{array}{r} 120 \\ + 207 \\ \hline \end{array}$$

$$\begin{array}{r} 459 \\ + 320 \\ \hline \end{array}$$

$$\begin{array}{r} 533 \\ + 429 \\ \hline \end{array}$$

$$\begin{array}{r} 332 \\ + 845 \\ \hline \end{array}$$

$$\begin{array}{r} 457 \\ + 372 \\ \hline \end{array}$$

$$\begin{array}{r} 538 \\ + 975 \\ \hline \end{array}$$

$$\begin{array}{r} 347 \\ 576 \\ + 423 \\ \hline \end{array}$$

$$\begin{array}{r} 1,438 \\ 2,754 \\ + 3,626 \\ \hline \end{array}$$

2 Rewrite these problems in vertical form. Then solve them. Show all your work.

**example**  $583 + 645$

$$\begin{array}{r} 1 \\ 583 \\ + 645 \\ \hline 1,228 \end{array}$$

**a**  $276 + 986$

**b**  $362 + 1,534$



## CHALLENGE

3 Use two numbers from the box to complete each addition problem below. You will use some numbers more than once.

97	204	297	405	498	607
----	-----	-----	-----	-----	-----

$$\begin{array}{r} \boxed{\phantom{00}} \\ + \boxed{\phantom{00}} \\ \hline 3 \ 0 \ 1 \end{array}$$

$$\begin{array}{r} \boxed{\phantom{00}} \\ + \boxed{\phantom{00}} \\ \hline 3 \ 9 \ 4 \end{array}$$

$$\begin{array}{r} \boxed{\phantom{00}} \\ + \boxed{\phantom{00}} \\ \hline 1, \ 0 \ 1 \ 2 \end{array}$$

$$\begin{array}{r} \boxed{\phantom{00}} \\ + \boxed{\phantom{00}} \\ \hline 1, \ 1 \ 0 \ 5 \end{array}$$

$$\begin{array}{r} \boxed{\phantom{00}} \\ + \boxed{\phantom{00}} \\ \hline 7 \ 0 \ 2 \end{array}$$

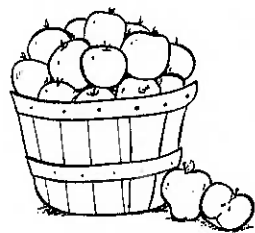
NAME \_\_\_\_\_

DATE \_\_\_\_\_

## Addition Story Problems

Solve the problems below. Show all your work.

- 1** Last week, Jose picked 325 pounds of apples. Gloria picked 236 pounds of apples. How many pounds of apples did Jose and Gloria pick altogether? Show all your work.

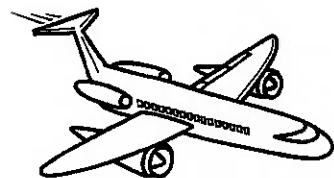


- 2** The year Marcus was born, there were 2,308 people living in the town where his parents lived. Now Marcus is nine years old, and the town has 856 more people than it did when he was born. How many people live in the town where Marcus lives? Show all your work.



### CHALLENGE

- 3** Fran is flying in an airplane. Right now it is 13,500 feet above the ground. It will go 16,800 more feet before it stops going any higher. How high will the airplane be then? Show all your work.



NAME \_\_\_\_\_

DATE \_\_\_\_\_

# Multi-Digit Subtraction Review

1 Solve the problems below. Show all your work.

$$\begin{array}{r} 649 \\ - 514 \\ \hline \end{array}$$

$$\begin{array}{r} 2,964 \\ - 723 \\ \hline \end{array}$$

$$\begin{array}{r} 482 \\ - 391 \\ \hline \end{array}$$

$$\begin{array}{r} 3,851 \\ - 1,470 \\ \hline \end{array}$$

$$\begin{array}{r} 4,582 \\ - 950 \\ \hline \end{array}$$

$$\begin{array}{r} 6,739 \\ - 547 \\ \hline \end{array}$$

$$\begin{array}{r} 385 \\ - 197 \\ \hline \end{array}$$

$$\begin{array}{r} 7,846 \\ - 4,928 \\ \hline \end{array}$$

2 Rewrite these problems in vertical form. Solve them and then add the numbers to check your answer. Show all your work.

<b>example</b> $906 - 458$ $\begin{array}{r} 89 \\ 906 \\ - 458 \\ \hline 448 \end{array}$ $\begin{array}{r} 11 \\ 458 \\ + 448 \\ \hline 906 \end{array}$	<b>a</b> $607 - 569$	<b>b</b> $8,046 - 753$
---	----------------------	------------------------



## CHALLENGE

3 Complete these problems. There is more than one correct solution to the first two problems.

a

$$\begin{array}{r} \square 0 1 \\ - \square \square \\ \hline \square 6 7 \end{array}$$

b

$$\begin{array}{r} \square 7 \square \\ - \square \square 2 \\ \hline 3 \square \square \end{array}$$

c

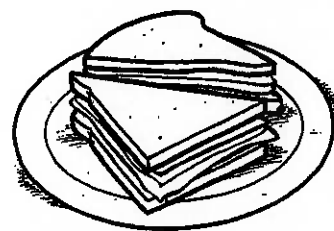
$$\begin{array}{r} 8 6 \square \\ - \square 4 1 \\ \hline 5 1 \square \end{array}$$

NAME \_\_\_\_\_

## Subtraction Story Problems

Solve the problems below. Show all your work.

- 1** Last week the cafeteria served 486 breakfast sandwiches. This week they served 538 breakfast sandwiches. How many more breakfast sandwiches did they serve this week?

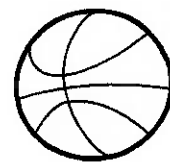


- 2** There were 6,742 bags of potato chips stored in the cafeteria. They served 781 of them at lunch. How many bags of potato chips are left?



### CHALLENGE

- 3** At the basketball game last night, the home team was losing by 48 points at half time, so fans started to leave. If there were 18,862 people at the game when it started and 6,946 went home at half time, how many people were still at the game for the second half?



NAME \_\_\_\_\_

DATE \_\_\_\_\_

# Add, Subtract & Multiply

1 Solve the addition and subtraction problems below. Show all your work.

$$\begin{array}{r} \$1.74 \\ + \$2.25 \\ \hline \end{array}$$

$$\begin{array}{r} \$20.71 \\ + \$6.55 \\ \hline \end{array}$$

$$\begin{array}{r} \$43.53 \\ + \$7.18 \\ \hline \end{array}$$

$$\begin{array}{r} \$8.14 \\ + \$7.03 \\ \hline \end{array}$$

$$\begin{array}{r} \$5.32 \\ - \$2.81 \\ \hline \end{array}$$

$$\begin{array}{r} \$3.42 \\ - \$1.84 \\ \hline \end{array}$$

$$\begin{array}{r} \$54.66 \\ - \$6.93 \\ \hline \end{array}$$

$$\begin{array}{r} \$3.04 \\ - \$1.26 \\ \hline \end{array}$$

2 Rewrite these problems in vertical form. Then solve them. Show all your work.

<b>example</b> $\$2.96 + \$8.45$ $\begin{array}{r} \phantom{\$}11 \\ \$2.96 \\ + \$8.45 \\ \hline \$11.41 \end{array}$	<b>a</b> $\$4.72 + \$2.39$	<b>b</b> $\$506.00 - \$3.57$
---	----------------------------	------------------------------

3 Complete these multiplication problems.

$$\begin{array}{r} 3 \\ \times 8 \\ \hline \end{array}$$

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

$$\begin{array}{r} 9 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 0 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 0 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 10 \\ \hline \end{array}$$

NAME \_\_\_\_\_

# Shopping Problems

Solve the problems below. Show all your work.

**1** George, Nico, and Brandon went to the store. George spent \$1.86 on fruit. Nico spent \$2.03 on a drink. Brandon spent \$1.45 on candy. How much did they spend altogether?

**2** Emma had \$5.80 in her pocket when she went to the store. If she spent \$3.97, how much money did she have left?



## CHALLENGE

**3** Susie has three brothers who are triplets. For their birthday, she bought each brother a rubber ball that cost 71¢ and a T-shirt that cost \$12.99. How much did she spend altogether on their birthday presents?





NAME \_\_\_\_\_

DATE \_\_\_\_\_

# Addition, Subtraction & Clock Problems

1 Solve the problems below Show all your work.

$$\begin{array}{r} 845 \\ + 127 \\ \hline \end{array}$$

$$\begin{array}{r} 795 \\ + 109 \\ \hline \end{array}$$

$$\begin{array}{r} 4,639 \\ + 2,467 \\ \hline \end{array}$$

$$\begin{array}{r} 379 \\ + 196 \\ \hline \end{array}$$

$$\begin{array}{r} 6,536 \\ - 2,618 \\ \hline \end{array}$$

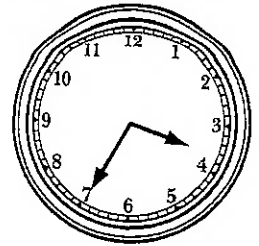
$$\begin{array}{r} 805 \\ - 108 \\ \hline \end{array}$$

$$\begin{array}{r} 2,305 \\ - 107 \\ \hline \end{array}$$

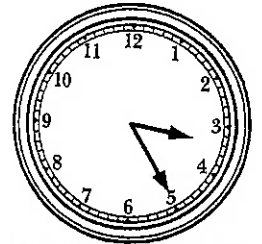
$$\begin{array}{r} 6,002 \\ - 336 \\ \hline \end{array}$$

2 Use the clocks to solve the problems below.

a Anna leaves school at 3:10 to walk home. The clock below shows what time she gets home. How long does it take Anna to walk home?

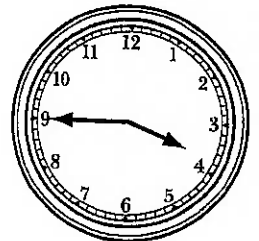


b Joseph leaves school at 3:05 to take the bus home. The clock below shows what time he gets home. How long is Joseph's bus ride?



## CHALLENGE

c Maribel leaves school at 3:10 to walk home. One day, she stopped at the store on the way home and spent 20 minutes shopping. If she got home at the time shown on the clock, how much time did she spend walking?



NAME \_\_\_\_\_

# Multiplication & Division Facts

1 Solve the problems below.

$$\begin{array}{r} 8 \\ \times 3 \\ \hline \end{array}$$

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

$$\begin{array}{r} 7 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 0 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ \times 8 \\ \hline \end{array}$$

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

$$\begin{array}{r} 9 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{llll} 63 \div 7 = \underline{\quad\quad\quad} & 42 \div 7 = \underline{\quad\quad\quad} & 36 \div 4 = \underline{\quad\quad\quad} & 20 \div 5 = \underline{\quad\quad\quad} \\ 16 \div 8 = \underline{\quad\quad\quad} & 18 \div 3 = \underline{\quad\quad\quad} & 6 \div 3 = \underline{\quad\quad\quad} & 14 \div 2 = \underline{\quad\quad\quad} \end{array}$$

2 Fill in the missing numbers.

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

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

$$\begin{array}{r} 5 \\ \times 7 \\ \hline \square \end{array}$$

$$\begin{array}{r} 8 \\ \times 4 \\ \hline \square \end{array}$$

$$\begin{array}{r} 8 \\ \times 8 \\ \hline \square \end{array}$$

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

$$\begin{array}{r} 2 \\ \times \square \\ \hline 10 \end{array}$$

$$\begin{array}{r} \square \\ \times 5 \\ \hline 15 \end{array}$$

$$\begin{array}{r} \square \\ \times 8 \\ \hline 40 \end{array}$$

$$\begin{array}{r} 9 \\ \times \square \\ \hline 72 \end{array}$$



## CHALLENGE

3 Use words and/or numbers to show how you could use the answer to  $4 \times 8$  to solve  $4 \times 16$ .

NAME \_\_\_\_\_

DATE \_\_\_\_\_

# Multiples & Multiplication Facts

**1** When you count by a number, you are naming the multiples of that number. For example, if you skip count by 5's, you are naming the multiples of five: 5, 10, 15, 20, 25, and so on. In each sequence below, fill in the missing multiples.

<b>ex</b> 5, 10, 15, <u>20</u> , 25, 30, <u>35</u>	<b>a</b> 3, 6, _____, 12, 15, 18, _____, 24
<b>b</b> 6, _____, 18, _____, 30	<b>c</b> 9, 18, _____, 36, 45, _____, 63

**2** Circle all the multiples of the number in each box.

<b>ex</b> 5	16	<u>20</u>	<u>15</u>	42	36	<u>45</u>	18	<b>a</b> 2	5	6	7	8	14	21	10
<b>b</b> 4	8	6	14	16	20	28	19	<b>c</b> 7	22	33	21	14	16	42	35
<b>d</b> 8	28	32	48	16	60	72	19	<b>e</b> 3	21	35	18	36	44	12	29

**3** Fill in the missing numbers.

$$\begin{array}{r} 9 \\ \times 9 \\ \hline \square \end{array}$$

$$\begin{array}{r} 3 \\ \times 9 \\ \hline \square \end{array}$$

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

$$\begin{array}{r} 2 \\ \times 6 \\ \hline \square \end{array}$$

$$\begin{array}{r} 7 \\ \times 8 \\ \hline \square \end{array}$$

$$\begin{array}{r} 3 \\ \times \square \\ \hline 24 \end{array}$$

$$\begin{array}{r} 7 \\ \times \square \\ \hline 14 \end{array}$$

$$\begin{array}{r} \square \\ \times 5 \\ \hline 30 \end{array}$$

$$\begin{array}{r} \square \\ \times 4 \\ \hline 36 \end{array}$$

$$\begin{array}{r} 3 \\ \times \square \\ \hline 12 \end{array}$$



## CHALLENGE

$$\begin{array}{r} 6 \\ \times 2 \\ \hline \square \end{array}$$

$$\begin{array}{r} 6 \\ \times 4 \\ \hline \square \end{array}$$

$$\begin{array}{r} 6 \\ \times 8 \\ \hline \square \end{array}$$

$$\begin{array}{r} 6 \\ \times 16 \\ \hline \square \end{array}$$

$$\begin{array}{r} 6 \\ \times 32 \\ \hline \square \end{array}$$

NAME \_\_\_\_\_

## Tasty Treats

- 1 Joseph works at an ice cream stand. He sold 5 milkshakes per hour on Saturday. If he worked for 8 hours, how many milkshakes did he sell on Saturday? Show all your work.



- 2 On the last day of school, Mr. Jackson brought in some cookies for the 6 students in his reading group. He had a box with 15 cookies in it and, to be fair, he gave each student the same number of cookies. How many cookies did each student get? Show all your work.



### CHALLENGE

- 3 At her farm stand, Judy had 126 pounds of lettuce, 267 pounds of corn, and 155 pounds of tomatoes. She sold 83 pounds of lettuce, 182 pounds of corn, and 86 pounds of tomatoes. How many pounds of vegetables does she have left? Show all your work.

NAME \_\_\_\_\_

DATE \_\_\_\_\_

# Arrays & Factors

**1** Draw and label a rectangular array to show two factors for each number. Do not use 1 as one of your factors. Then write the fact family that goes with your array.

<p><b>example</b> 8</p> <div style="text-align: center;"> </div> $\begin{array}{r} 2 \times 4 = 8 \\ 4 \times 2 = 8 \\ 8 \div 4 = 2 \\ 8 \div 2 = 4 \end{array}$	<p><b>a</b> 16</p> $\begin{array}{r} \_\_\_ \times \_\_\_ = \_\_\_ \\ \_\_\_ \times \_\_\_ = \_\_\_ \\ \_\_\_ \div \_\_\_ = \_\_\_ \\ \_\_\_ \div \_\_\_ = \_\_\_ \end{array}$	<p><b>b</b> 18</p> $\begin{array}{r} \_\_\_ \times \_\_\_ = \_\_\_ \\ \_\_\_ \times \_\_\_ = \_\_\_ \\ \_\_\_ \div \_\_\_ = \_\_\_ \\ \_\_\_ \div \_\_\_ = \_\_\_ \end{array}$
--	--	--

**2** List all the factors of each number below.

<b>ex</b> 12	1, 2, 3, 4, 6, 12	<b>a</b> 16	
<b>b</b> 17		<b>c</b> 24	
<b>d</b> 9		<b>e</b> 36	

**3a** Circle the prime number(s) in problem 2.

**b** Draw a square around the square number(s) in problem 2.



## CHALLENGE

**4** Fill in the missing digits in the problems below.

**example**

$$\begin{array}{r} 7 \cancel{8} \boxed{3} 4 \\ - 69 \boxed{3} \\ \hline \boxed{1} 4 1 \end{array}$$

**a**

$$\begin{array}{r} 3 \boxed{\phantom{0}} 6 \\ + \boxed{\phantom{0}} 9 \boxed{\phantom{0}} \\ \hline 704 \end{array}$$

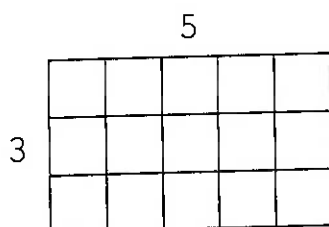
**b**

$$\begin{array}{r} 623 \\ - \boxed{\phantom{0}} 4 \boxed{\phantom{0}} \\ \hline 1 \boxed{\phantom{0}} 7 \end{array}$$

# Area & Perimeter

**1** Find the area and perimeter of each rectangle. Area is the total amount of space covered by the rectangle. Perimeter is the distance around the rectangle.

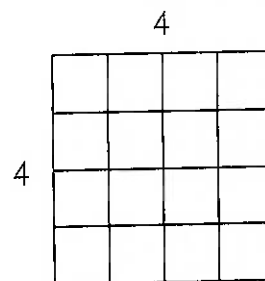
**example**



Perimeter  $3 + 3 + 5 + 5 = 16$  units

Area  $3 \times 5 = 15$  square units

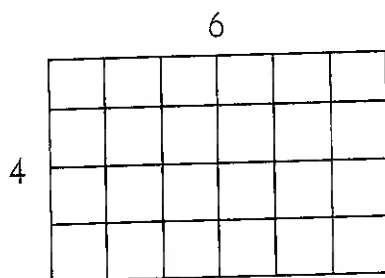
**a**



Perimeter \_\_\_\_\_

Area \_\_\_\_\_

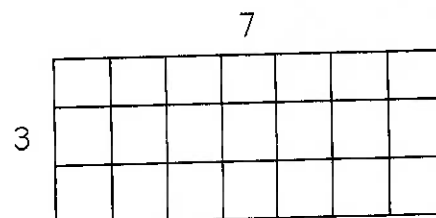
**b**



Perimeter \_\_\_\_\_

Area \_\_\_\_\_

**c**



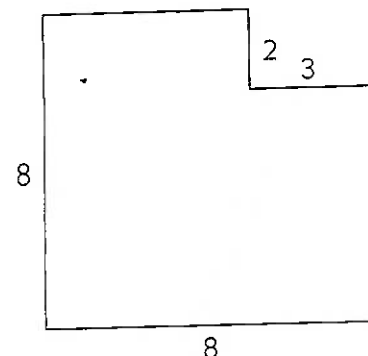
Perimeter \_\_\_\_\_

Area \_\_\_\_\_



## CHALLENGE

**2** Find the area and perimeter of this shape. Show all your work.



Perimeter \_\_\_\_\_

Area \_\_\_\_\_

NAME \_\_\_\_\_

DATE \_\_\_\_\_

## Area & Perimeter Story Problems

You can make sketches to help solve the problems below. Remember to include the units of measurement in your answers. Show all of your work.

**1a** The classroom rug is 9 feet long and 8 feet wide. What is the total area of the rug?

**b** What is the perimeter of the rug?

**2a** Chrissy is going to make a big painting on a piece of wood that is 4 feet wide and 7 feet long. What is the total area of the piece of wood?

**b** What is the perimeter of the piece of wood?

**3** The school playground measures 465 feet by 285 feet. What is the perimeter of the playground?

NAME \_\_\_\_\_

# Place Value & Perimeter

1 Write each number below in standard form.

**example** twenty-three thousand, five hundred six 23,506

**a** nine thousand, two hundred forty-eight \_\_\_\_\_

**b** seventeen thousand, six hundred thirty-three \_\_\_\_\_

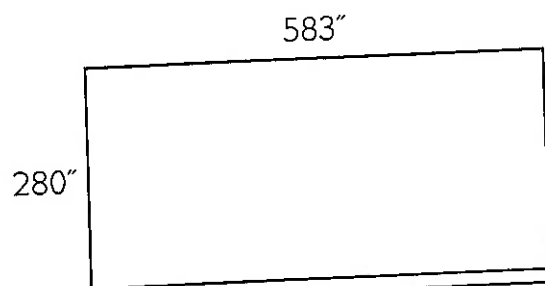
**c** thirty-two thousand, fifty-eight \_\_\_\_\_

2 Identify the place value and value of the underlined digit in each number.

Number	Place Value	Value
<b>ex</b> 3 <u>6</u> ,874	thousands	six thousand
<b>a</b> 17, <u>6</u> 04		
<b>b</b> 8, <u>0</u> 97		
<b>c</b> <u>4</u> 1,000		

3 Find the perimeter of each rectangle below. Show your work.

**example** Perimeter 1,726"

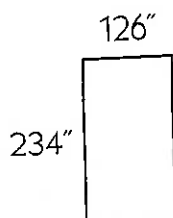


$$\begin{array}{r} 1 \\ 280'' \\ + 280'' \\ \hline 560'' \end{array}$$

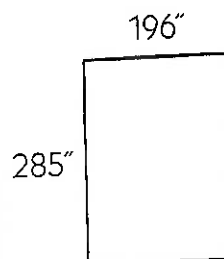
$$\begin{array}{r} 1 \\ 583'' \\ + 583'' \\ \hline 1,166'' \end{array}$$

$$\begin{array}{r} 1 \\ 1,166'' \\ + 560'' \\ \hline 1,726'' \end{array}$$

**a** Perimeter \_\_\_\_\_



**b** Perimeter \_\_\_\_\_





NAME \_\_\_\_\_

DATE \_\_\_\_\_

# Multiplication & Division Practice

1 Solve the following multiplication and division problems.

$$\begin{array}{r} 7 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 2 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 9 \\ \hline \end{array}$$

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

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

$$\begin{array}{r} 9 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{llll} 32 \div 4 = \underline{\quad\quad} & 20 \div 5 = \underline{\quad\quad} & 16 \div 8 = \underline{\quad\quad} & 24 \div 3 = \underline{\quad\quad} \\ 24 \div 4 = \underline{\quad\quad} & 15 \div 3 = \underline{\quad\quad} & 40 \div 5 = \underline{\quad\quad} & 36 \div 6 = \underline{\quad\quad} \end{array}$$

2 Fill in the missing numbers.

$$\begin{array}{r} 9 \\ \times 7 \\ \hline \square \end{array}$$

$$\begin{array}{r} 3 \\ \times 0 \\ \hline \square \end{array}$$

$$\begin{array}{r} 7 \\ \times 7 \\ \hline \square \end{array}$$

$$\begin{array}{r} 1 \\ \times 5 \\ \hline \square \end{array}$$

$$\begin{array}{r} 5 \\ \times 8 \\ \hline \square \end{array}$$

$$\begin{array}{r} 7 \\ \times \square \\ \hline 4 \ 2 \end{array}$$

$$\begin{array}{r} 5 \\ \times \square \\ \hline 4 \ 0 \end{array}$$

$$\begin{array}{r} \square \\ \times 8 \\ \hline 6 \ 4 \end{array}$$

$$\begin{array}{r} \square \\ \times 4 \\ \hline 1 \ 6 \end{array}$$

$$\begin{array}{r} 3 \\ \times \square \\ \hline 1 \ 8 \end{array}$$

3 Solve the following multiplication problems.

$$\begin{array}{r} 4 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 100 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 1,000 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 100 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 1,000 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 100 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 1,000 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 100 \\ \hline \end{array}$$

$$\begin{array}{r} 0 \\ \times 1,000 \\ \hline \end{array}$$



## CHALLENGE

4 Fill in the missing numbers.

$$300 \div \underline{\quad\quad} = 3$$

$$8,000 \div \underline{\quad\quad} = 1,000$$

$$40 \div \underline{\quad\quad} = 4$$

NAME \_\_\_\_\_

# Number Riddles

1 Draw a line to show which number matches each description. The first one is done for you.

<b>example</b> This number has a 2 in the thousands place.	46,305
<b>a</b> This is an even number with a 6 in the hundreds place.	32,617
<b>b</b> This number is equal to $30,000 + 4,000 + 80 + 2$ .	45,052
<b>c</b> This number is 1000 less than 46,052.	19,628
<b>d</b> This is an odd number with a 6 in the thousands place.	34,082

2 Write each number in words.

<b>example</b> 17,329	seventeen thousand, three hundred twenty-nine
<b>a</b> 33,072	
<b>b</b> 86,105	
<b>c</b> 74,629	



## CHALLENGE



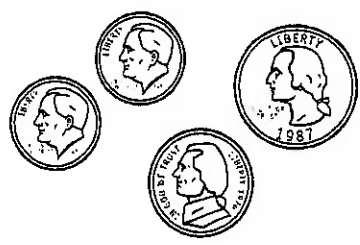



3 Write an even number that has a 7 in the hundreds place, has an odd number in the thousands place, and is a multiple of 10.

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# Counting Coins & Bills

1 Write each money amount in decimal form. You can draw loops around groups of coins that make it easier for you to find the total amount.

<p><b>ex</b> <u>\$0.37</u></p> 	<p><b>a</b> _____</p> 	<p><b>b</b> _____</p> 
<p><b>c</b> _____</p> 	<p><b>d</b> _____</p> 	<p><b>e</b> _____</p> 

2 Write each money amount in decimal form.

**example** 1 dollar bill, 5 quarters, 3 pennies

\$2.28

**a** 3 dollar bills, 9 nickels, 2 pennies

**b** 6 quarters, 2 dimes, 4 pennies

**c** 3 quarters, 6 nickels, 7 pennies

**d** 4 dollar bills, 3 half dollars, 7 nickels

**e** 2 dollar bills, 7 quarters, 16 pennies



## CHALLENGE

**f** 12 quarters, 80 nickels, 97 pennies

**g** 24 quarters, 140 nickels, 30 dimes, 45 pennies

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# Addition & Multiplication Puzzles

**1** Complete the addition puzzle box below. The sums of the rows and the diagonals are in bold boxes.

<b>example</b>			213
125	25	50	200
50	<b>150</b>	<b>33</b>	233
13	25	<b>350</b>	388
			625

<b>a</b>			225
	13		179
80		30	160
75	13	50	
			166

**2** Complete the multiplication puzzle box below. The products of the rows and the diagonals are in bold boxes.

<b>example</b>			2,000
10	<b>2</b>	1	20
<b>2</b>	<b>2</b>	100	400
1,000	3	2	6,000
			40

<b>a</b>			60
100		3	600
		1,000	8,000
	3	2	60
			400

**3** Complete each equation below.

**ex**  $2 \times \underline{1} \times 1,000 = 2,000$

**b**  $3 \times 3 \times \underline{\hspace{2cm}} = 90$

**d**  $3 \times \underline{\hspace{2cm}} \times 10 = 60$

**a**  $\underline{\hspace{2cm}} \times 4 \times 100 = 800$

**c**  $1 \times \underline{\hspace{2cm}} \times 1,000 = 8,000$

**e**  $2 \times 2 \times \underline{\hspace{2cm}} = 400$

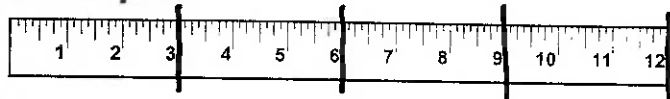
NAME \_\_\_\_\_

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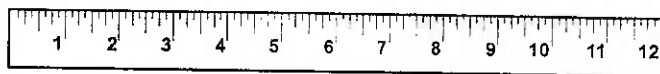
# Fractions of a Foot

1 Write two names for each fraction of a foot. You can draw on the rulers to help.

**example**


 $\frac{3}{12}$ 
 $\frac{1}{4}$ 

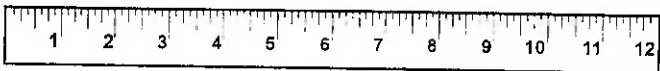
**a**



**b**

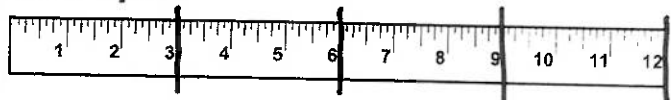


**c**

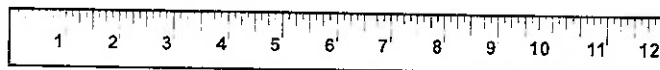


2 Shade the ruler to show each fraction of a foot. Then write another name for the fraction. You can draw lines to divide the rulers into equal parts.

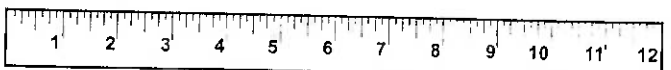
**example**


 $\frac{9}{12}$ 
 $\frac{3}{4}$ 

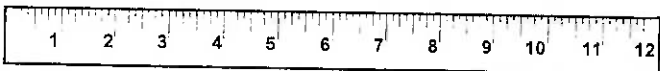
**a**


 $\frac{8}{12}$ 

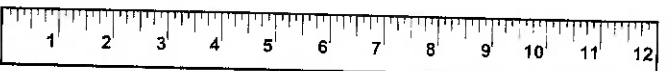
**b**


 $\frac{10}{12}$ 

**c**


 $\frac{12}{12}$ 

**d**


 $\frac{2}{6}$ 

**e**


 $\frac{2}{3}$

NAME \_\_\_\_\_

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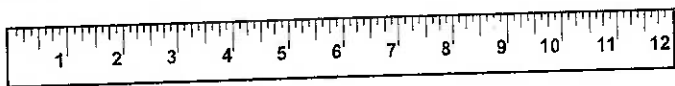
# More Fractions of a Foot

**1** Write the number of inches in each fraction of a foot. You can look at page 41 to help.

**a**  $\frac{1}{2}$  of a foot is equal to \_\_\_\_\_ inches    **b**  $\frac{1}{4}$  of a foot is equal to \_\_\_\_\_ inches


**c**  $\frac{1}{6}$  of a foot is equal to \_\_\_\_\_ inches    **d**  $\frac{1}{3}$  of a foot is equal to \_\_\_\_\_ inches

**2** Write the number of inches in each fraction of a foot. Use the rulers below and the information in problem 1 to help. Then circle the greater fraction in each pair. If they are equal, circle them both.



<b>example</b> $\frac{1}{2}$ $\frac{1}{4}$ 6 inches 3 inches	<b>a</b> $\frac{1}{3}$ $\frac{1}{4}$
<b>b</b> $\frac{2}{3}$ $\frac{1}{2}$	<b>c</b> $\frac{1}{2}$ $\frac{3}{6}$
<b>d</b> $\frac{2}{3}$ $\frac{3}{4}$	<b>e</b> $\frac{1}{4}$ $\frac{2}{3}$

**3** Write all the factors of each number. Hint: *Think about pairs of factors that multiply to make the number.*

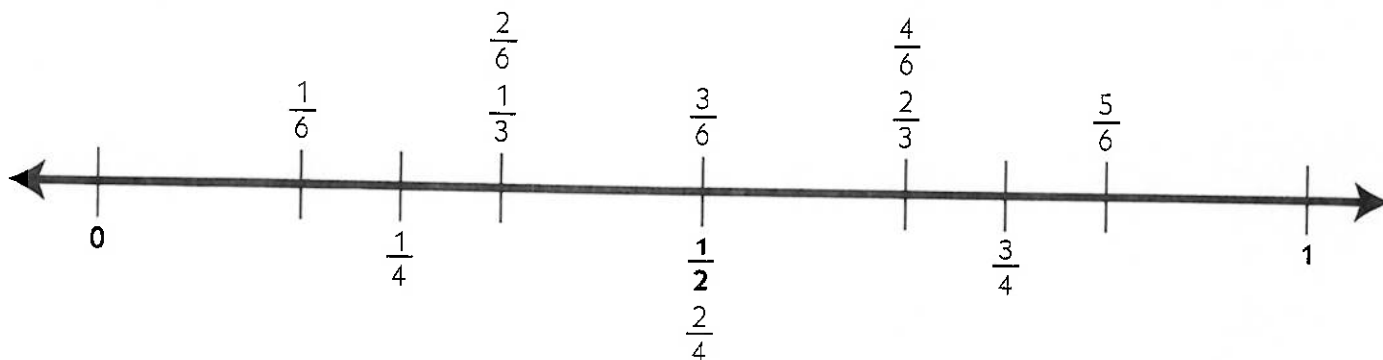
<b>ex</b> 18	1, 2, 3, 6, 9, 18	<b>a</b> 12	
<b>b</b> 15		<b>c</b> 36	
<b>d</b> 60		 <b>e</b> 120	

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# Comparing Fractions on a Number Line

When you are comparing fractions, it can help to think about how close those fractions are to landmarks like one whole and one-half. Use the number line to help complete the problems below.



1 Complete the table.

Circle the fraction that is greater than $\frac{1}{2}$ .	Write a number sentence showing which fraction is greater.
<b>example</b> $\left(\frac{4}{6}\right)$ $\frac{1}{4}$	$\frac{4}{6} > \frac{1}{4}$
<b>a</b> $\frac{2}{6}$ $\frac{2}{3}$	
<b>b</b> $\frac{1}{3}$ $\frac{5}{6}$	

2 Complete the table.

Circle the fraction that is closest to 1.	Write a number sentence showing which fraction is greater.
<b>a</b> $\frac{3}{4}$ $\frac{2}{3}$	
<b>b</b> $\frac{5}{6}$ $\frac{2}{3}$	
<b>c</b> $\frac{3}{4}$ $\frac{5}{6}$	

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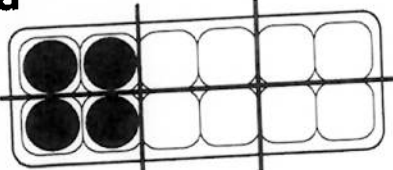
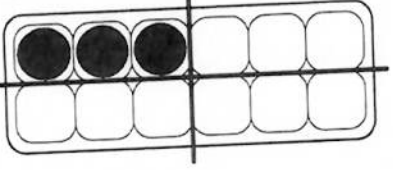
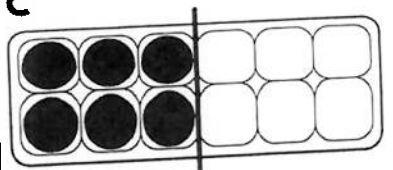
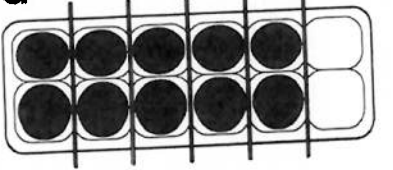
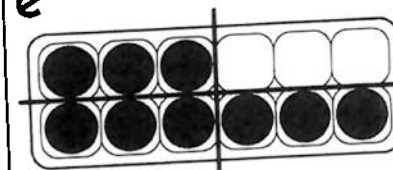
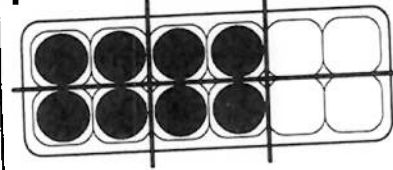
# Egg Carton Fractions

**1** Solve the following multiplication and division problems. They might help you think about the egg cartons in problem 2.

$$12 \div 2 = \underline{\hspace{2cm}} \quad 12 \div 3 = \underline{\hspace{2cm}} \quad 12 \div 4 = \underline{\hspace{2cm}} \quad 12 \div 6 = \underline{\hspace{2cm}}$$

$$6 \times 3 = \underline{\hspace{2cm}} \quad 4 \times 2 = \underline{\hspace{2cm}} \quad 3 \times 3 = \underline{\hspace{2cm}} \quad 2 \times 5 = \underline{\hspace{2cm}}$$

**2** Write a fraction to show the amount of each egg carton that is filled with eggs. The cartons are divided into equal parts for you.

<b>a</b>  _____	<b>b</b>  _____
<b>c</b>  _____	<b>d</b>  _____
<b>e</b>  _____	<b>f</b>  _____

**3** Write greater than ( $>$ ) or less than ( $<$ ) to show which fraction is greater. If they are equal, write an equal sign ( $=$ ).

<b>ex a</b> $\frac{1}{4} < \frac{1}{2}$	<b>ex b</b> $\frac{1}{2} > \frac{1}{3}$	<b>a</b> $\frac{4}{6}$ $\frac{2}{3}$
<b>b</b> $\frac{1}{3}$ $\frac{1}{4}$	<b>c</b> $\frac{3}{4}$ $\frac{5}{6}$	<b>d</b> $\frac{1}{3}$ $\frac{3}{4}$
<b>e</b> $\frac{1}{2}$ $\frac{2}{4}$	<b>f</b> $\frac{2}{3}$ $\frac{3}{4}$	<b>g</b> $\frac{2}{6}$ $\frac{1}{3}$



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# More Multiplication Tables

1 Fill in the missing numbers.

$$\begin{array}{r} 8 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 8 \\ \hline \end{array}$$

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

$$\begin{array}{r} 8 \\ \times \square \\ \hline 56 \end{array}$$

$$\begin{array}{r} 9 \\ \times \square \\ \hline 63 \end{array}$$

$$\begin{array}{r} \square \\ \times 5 \\ \hline 25 \end{array}$$

$$\begin{array}{r} \square \\ \times 6 \\ \hline 42 \end{array}$$

$$\begin{array}{r} 8 \\ \times \square \\ \hline 72 \end{array}$$

2 Complete the multiplication tables below.

ex

$\times$	5	2	9	3	8	6	7	4
2	10	4	18	6	16	12	14	8

a

$\times$	5	2	9	3	8	6	7	4
10								

b

$\times$	5	2	9	3	8	6	7	4
5								

c

$\times$	5	2	9	3	8	6	7	4
9								



## CHALLENGE

3 Use what you know about multiplying by 10 to help solve these problems.

$$\begin{array}{r} 12 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 12 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 18 \\ \times 10 \\ \hline \end{array}$$

$$\begin{array}{r} 18 \\ \times 5 \\ \hline \end{array}$$

$$\begin{array}{r} 18 \\ \times 9 \\ \hline \end{array}$$

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# Writing Improper Fractions as Mixed Numbers

1 Complete the multiplication facts.

$$\begin{array}{r} 5 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 70 \\ \hline \end{array}$$

$$\begin{array}{r} 50 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 50 \\ \times 70 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 30 \\ \hline \end{array}$$

$$\begin{array}{r} 40 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 40 \\ \times 30 \\ \hline \end{array}$$

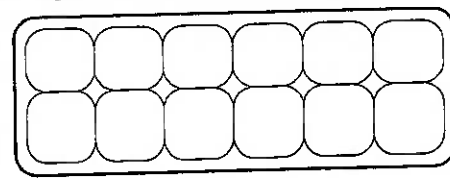
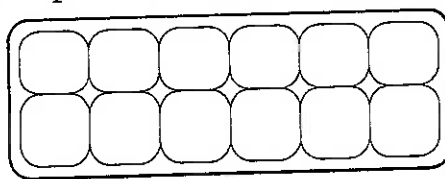
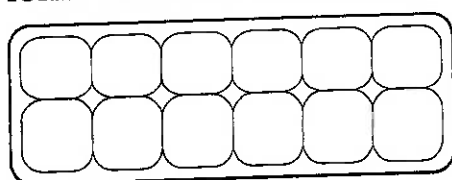
$$\begin{array}{r} 8 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 8 \\ \times 70 \\ \hline \end{array}$$

$$\begin{array}{r} 80 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 80 \\ \times 70 \\ \hline \end{array}$$

2 Write each fraction as a whole number or a mixed number. Some of the problems are done for you as examples. You can draw on the egg cartons to help.



$$\frac{3}{3} = \underline{\hspace{2cm}}$$

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

$$\frac{4}{3} = \underline{\hspace{2cm}}$$

$$\frac{5}{3} = \underline{\hspace{2cm}}$$

$$\frac{7}{3} = \underline{2\frac{1}{3}}$$

$$\frac{6}{6} = \underline{\hspace{2cm}}$$

$$\frac{12}{12} = \underline{\hspace{2cm}}$$

$$\frac{18}{12} = \underline{\hspace{2cm}}$$

$$\frac{6}{6} = \underline{\hspace{2cm}}$$

$$\frac{12}{6} = \underline{\hspace{2cm}}$$

$$\frac{8}{6} = \underline{\hspace{2cm}}$$

$$\frac{9}{6} = \underline{\hspace{2cm}}$$



## CHALLENGE

$$\frac{5}{4} = \underline{\hspace{2cm}}$$

$$\frac{8}{4} = \underline{\hspace{2cm}}$$

$$\frac{15}{4} = \underline{\hspace{2cm}}$$

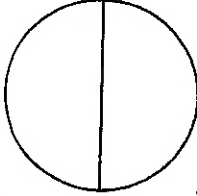
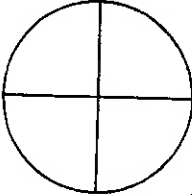
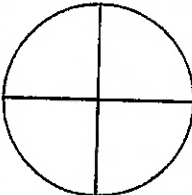
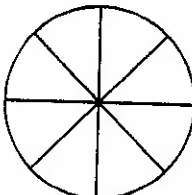
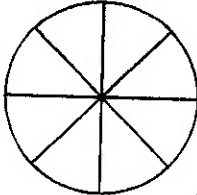
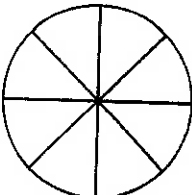
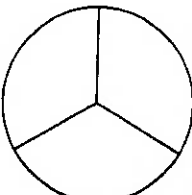

$$\frac{36}{4} = \underline{\hspace{2cm}}$$

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# More Fractions & Division

1 Write a fraction to show how much of each circle is filled in.

<b>example</b>  $\frac{1}{2}$	<b>a</b>  _____	<b>b</b>  _____	<b>c</b>  _____
<b>d</b>  _____	<b>e</b>  _____	<b>f</b>  _____	<b>g</b>  _____

2 Solve the following division problems. The answers can help you with problem 3.

$24 \div 2 = \underline{\hspace{2cm}}$	$24 \div 4 = \underline{\hspace{2cm}}$	$24 \div 8 = \underline{\hspace{2cm}}$	$24 \div 3 = \underline{\hspace{2cm}}$
$240 \div 2 = \underline{\hspace{2cm}}$	$240 \div 4 = \underline{\hspace{2cm}}$	$240 \div 8 = \underline{\hspace{2cm}}$	$240 \div 3 = \underline{\hspace{2cm}}$

3 You can use what you know about division to find different fractions of a number.

**example** Half of 24 is 12.

**b** One-eighth of 24 is \_\_\_\_\_.

**d** One-third of 240 is \_\_\_\_\_.

**f** One-eighth of 240 is \_\_\_\_\_.

**a** One-third of 24 is \_\_\_\_\_.

**c** One-fourth of 24 is \_\_\_\_\_.

**e** Half of 240 is \_\_\_\_\_.

**g** One-fourth of 240 is \_\_\_\_\_.



## CHALLENGE

**h** Three-fourths of 24 is \_\_\_\_\_.

















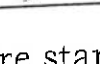

**i** Two-thirds of 240 is \_\_\_\_\_.

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
# Dog Bone Graph

A pictograph uses pictures or symbols to show numbers of things. A pet store owner used a pictograph to keep track of how many dog bones she sold each day. Use the pictograph to answer the questions below.

Number of Dog Bones Sold Each Day

Monday	  
Tuesday	   
Wednesday	   
Thursday	 
Friday	    

Key

  = 10 Bones

- How many bones does each bone picture stand for?
- How many bones does each half-bone picture stand for?
- On which day were the most bones sold?
- How many bones were sold on Tuesday?
- How many bones were sold altogether this week, from Monday to Friday?  
Show all your work.



## CHALLENGE

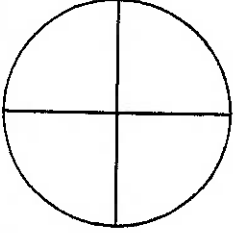
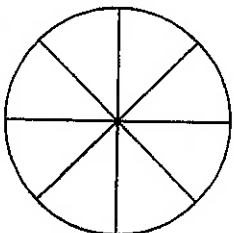
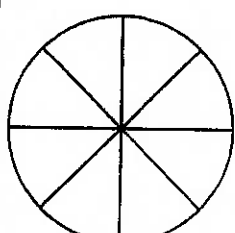
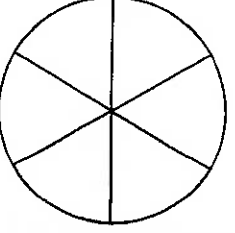
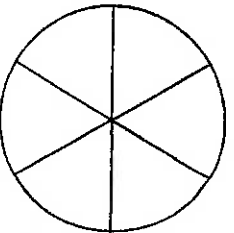
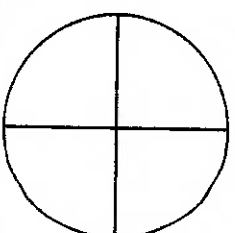
- The pet store owner sold half as many dog bones last week as she did this week. How many bones were sold last week? (The pictograph shows the bones sold this week.) Show your work.

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# Fractions & Mixed Numbers


1 The circles below are divided into equal parts. Write two fractions to show what part of each circle is filled in.

<b>example</b>  $\frac{1}{2}$ $\frac{2}{4}$	<b>a</b> 	<b>b</b> 
<b>c</b> 	<b>d</b> 	<b>e</b> 

2 The circles below are divided into equal parts. Write a fraction and a mixed number to show how many circles are filled in.

	Fraction	Mixed Number		Fraction	Mixed Number
<b>example</b> 	$\frac{3}{2}$	$1\frac{1}{2}$	<b>a</b> 		
<b>b</b> 			<b>c</b> 		

3 Fill in the missing fractions or mixed numbers.

<div style="text-align: right;">  <b>CHALLENGE</b> </div>								
Fractions	<b>ex</b> $\frac{5}{2}$	<b>a</b> $\frac{9}{2}$	<b>b</b> $\frac{9}{4}$	<b>c</b> $\frac{14}{4}$	<b>d</b>	<b>e</b>	<b>f</b> $\frac{62}{3}$	<b>g</b>
Mixed Number	$2\frac{1}{2}$				$3\frac{1}{2}$	$2\frac{3}{4}$		$30\frac{1}{3}$

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# Decimals & Fractions

1 Write the place value of the underlined digit in each number. The place values are spelled for you here:

hundreds	tens	ones	tenths	hundredths
----------	------	------	--------	------------

**example** 2.03 hundredths

**a** 3.17 \_\_\_\_\_

**b** 120.4 \_\_\_\_\_

**c** 506.92 \_\_\_\_\_

**d** 54.29 \_\_\_\_\_

**e** 32.7 \_\_\_\_\_

2 Write each decimal number.

**ex a** Twenty-three and two-tenths: 23.2

**ex b** One hundred thirty and five-hundredths: 130.05

**a** Six and seven-hundredths: \_\_\_\_\_

**b** Two-hundred sixty-five and eight-tenths: \_\_\_\_\_

3 Write each fraction or mixed number as a decimal number.

<b>ex a</b> $5\frac{3}{10} = 5.3$	<b>ex b</b> $12\frac{4}{100} = 12.04$	<b>ex c</b> $3\frac{17}{100} = 3.17$
<b>a</b> $\frac{7}{10} =$	<b>b</b> $3\frac{5}{100} =$	<b>c</b> $\frac{4}{100} =$
<b>d</b> $4\frac{38}{100} =$	<b>e</b> $1\frac{9}{100} =$	<b>f</b> $1\frac{9}{10} =$

4 Use a greater than (>), less than (<), or equal sign to show the relationship between the decimal numbers below.

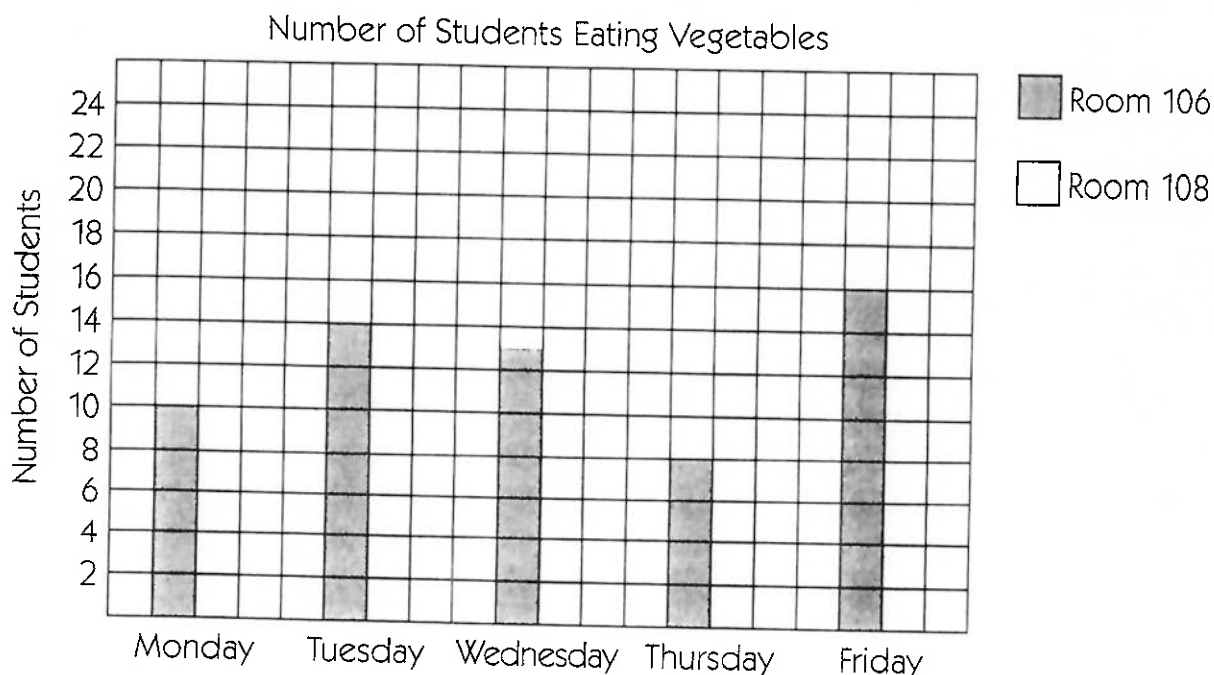
<b>ex</b> 1.09 < 1.9	<b>a</b> 1.12      1.2	<b>b</b> 3.5      3.48
<b>c</b> 23.81      23.85	<b>d</b> 4.50      4.5	<b>e</b> 3.06      3.65

NAME \_\_\_\_\_

DATE \_\_\_\_\_

# The Vegetable Eating Contest

The students in rooms 106 and 108 decided to have a contest to see which classroom ate the most vegetables. Each day for a week they kept track of the number of students from each room who ate vegetables. This double bar graph shows their results. There are 24 students in each class.



- 1 How many students does each box on the graph represent?
- 2 How many students from room 108 ate vegetables on Thursday?
- 3 On which day or days did the same number of students from each room eat vegetables?
- 4 On which day or days did more students from room 108 eat vegetables?
- 5 Which class did a better job of eating vegetables? Use evidence from the graph to explain your answer.