

Summer Math Packet

Scholars Entering Grade 4

Name:_____

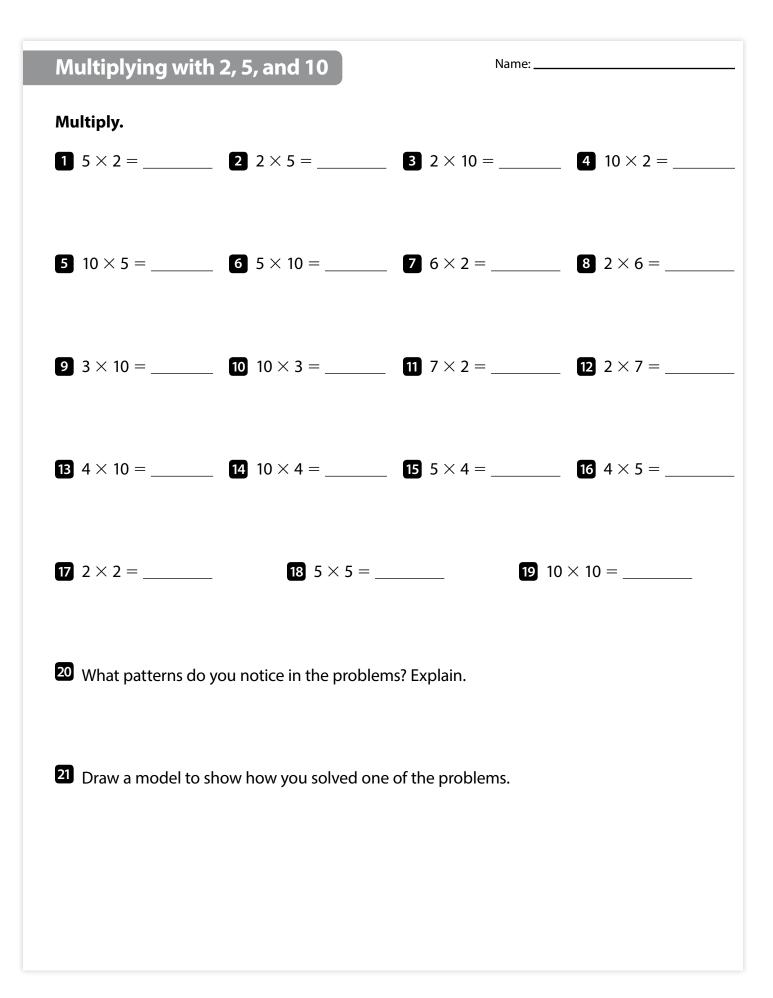
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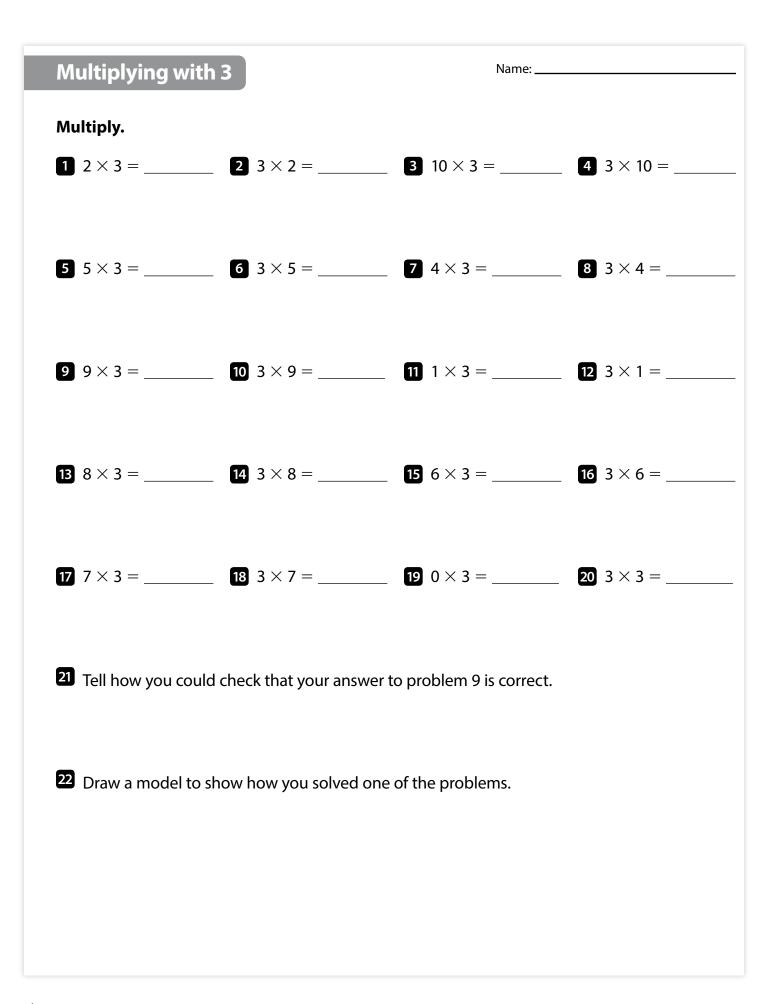
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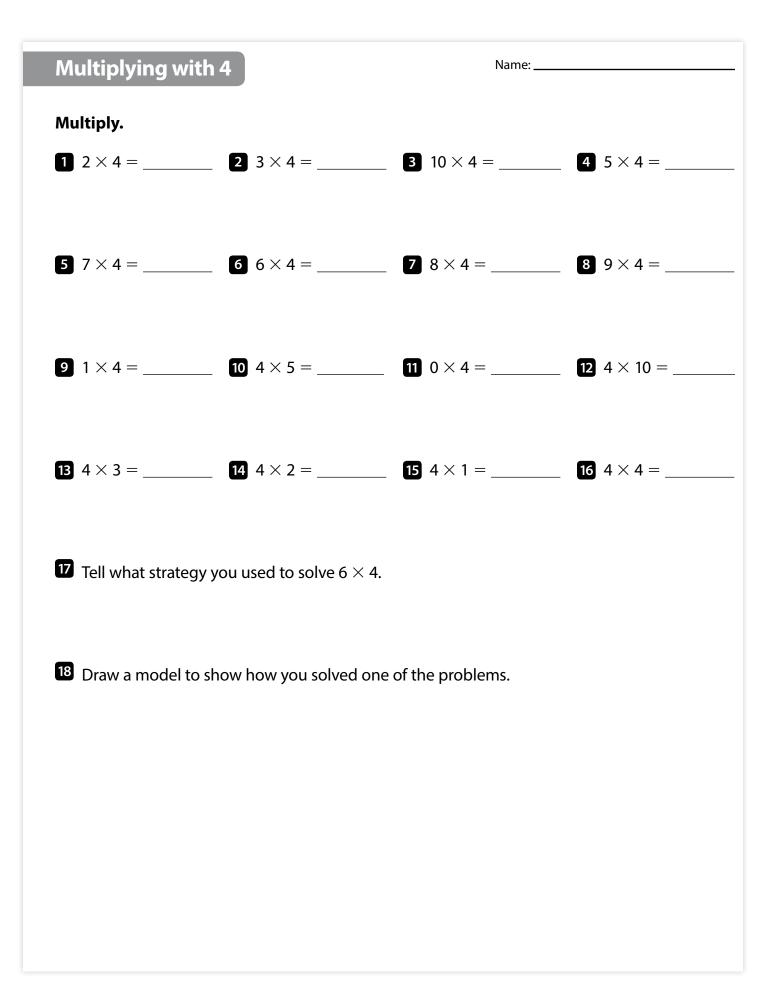
Understanding of Multiplication Models Name: 1 Show 3×5 by drawing equal groups of 5. Show 3 \times 5 by drawing an array. Complete the equation. $3 \times 5 =$ _____ **2** Write an equation that matches the array. $\Delta\Delta\Delta\Delta\Delta\Delta$ $\Delta\Delta\Delta\Delta\Delta\Delta$ **3** Write an equation that matches the picture. 4 Use words to describe the drawing for problem 3.

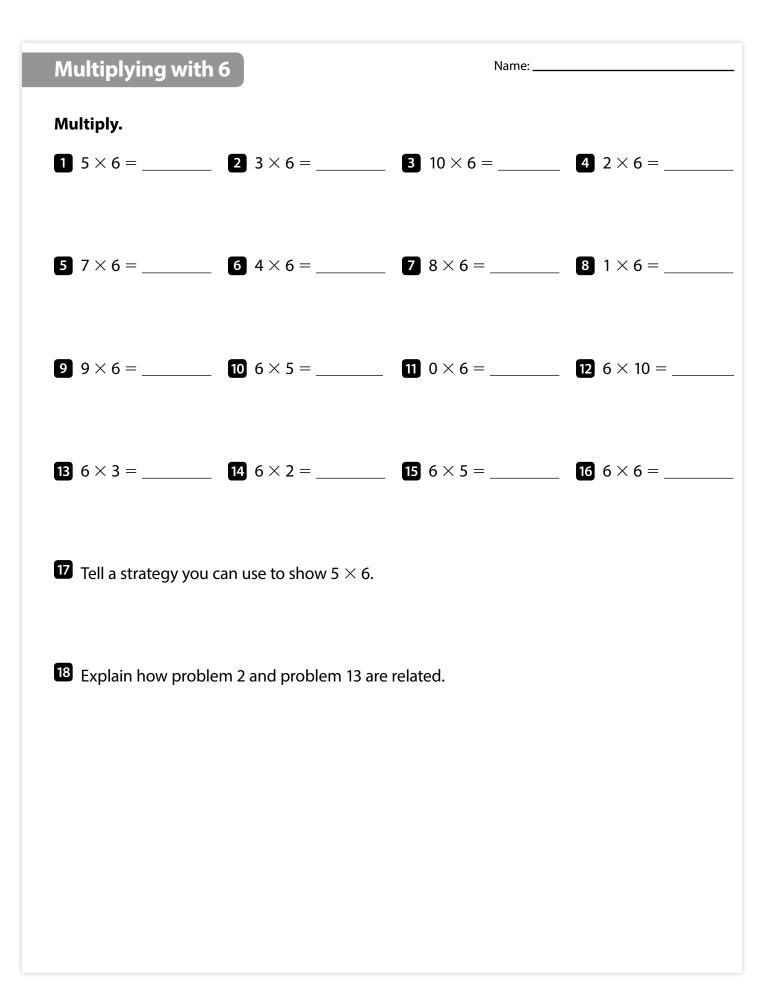


Multiplying with 0 and 1 Name: ____ Write the missing digits in the boxes to make each multiplication problem true. $3 \times 1 =$ $0 \times 7 =$ $5 \times 1 =$ $1 \times 0 =$ $1 \times 7 = \boxed{ 4 \times \boxed{ = 0 } 4 \times \boxed{ = 4 } 9 \times \boxed{ = 0 }$ $\times 1 = 3 \qquad \qquad \times 9 = 9 \qquad \qquad \times 8 = 0 \qquad \qquad \times 6 = 0$ Write two factors to make each multiplication problem true. = 2 = 5 × | = 7 \times \times X = 1 Write a digit in the box to make the multiplication problem true. Then use words to write about the groups. $\times 0 = 0$



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Multiplying	y with 7		Na	ame:	
The answers ar answers as you	=	the bottom of t problems.	the page. Cross	out the	
1 3 × 7 =		2 6 × 7 =		3 8×7 =	
4 2 × 7 =		5 9×7=		6 1 × 7 =	
7 7 × 0 =		8 10 × 7 = _		9 4 × 7 =	
10 5 × 7 =		11 7 × 3 =		12 0 × 7 =	
13 7 × 2 =		14 7 × 10 = _		15 7 × 4 =	
16 7 × 1 =		17 7 × 5 =		18 7 × 7 =	
Answers					
14	63	35	70	0	42
7	28	14	21	56	21
28	0	70	49	35	7

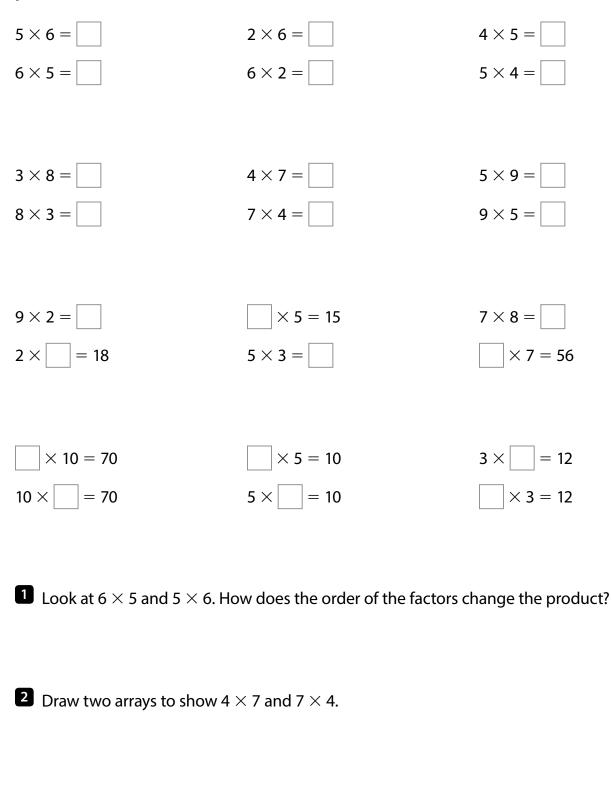
Multiplyi	ing with 8	Name:	Name:			
	rs are mixed up a you complete tl		of the page. C	ross out the		
1 2 × 8 =		2 6 × 8 =	:	3 7 × 8 :	=	
4 3 × 8 =		5 9×8=	=	6 1×8	=	
7 0×8=		8 10×8	=	9 4×8	=	
10 5 × 8 =		11 8 × 3 =	=	12 8 × 0 :	=	
13 8 × 2 =		14 8 × 10	=	15 8 × 4 :	=	
16 8 × 7 =		17 8 × 5 =		18 8 × 8 :	=	
Answers						
64	40	48	8	0	56	
72	80	24	32	16	32	
24	0	80	40	56	16	

Multiplyin	g with 9	Ν	ame:		
	are mixed up at ou complete the		the page. Cross	out the	
1 1 × 9 =		2 6 × 9 = _		3 7 × 9 = _	
4 2 × 9 =		5 8×9=_		6 3×9=_	
7 0 × 9 =		8 10 × 9 = _		9 4×9=_	
10 5 × 9 =		11 9 × 3 = _		12 9 × 8 = _	
13 9 × 2 =		14 9 × 10 = _		15 9 × 4 = _	
16 9 × 7 =		17 9 × 5 = _		18 9×9=_	
Answers					
63	45	18	81	90	36
72	54	27	36	72	63
90	0	18	9	27	45

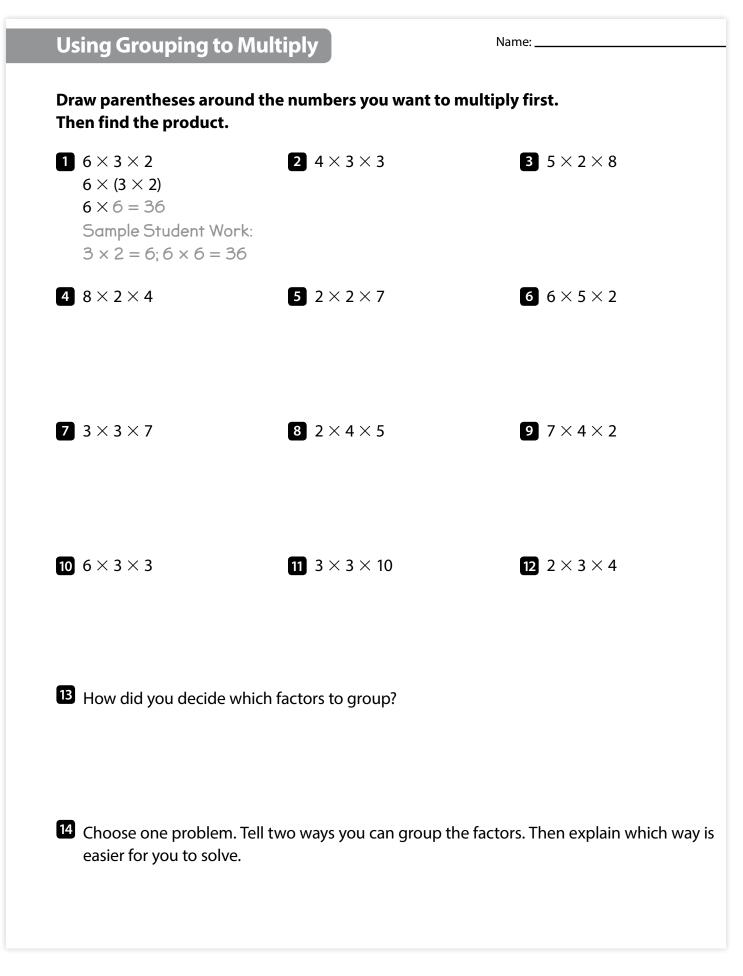
Using Order to Multiply

Name: _____

Write the missing numbers in the boxes to make each multiplication problem true.

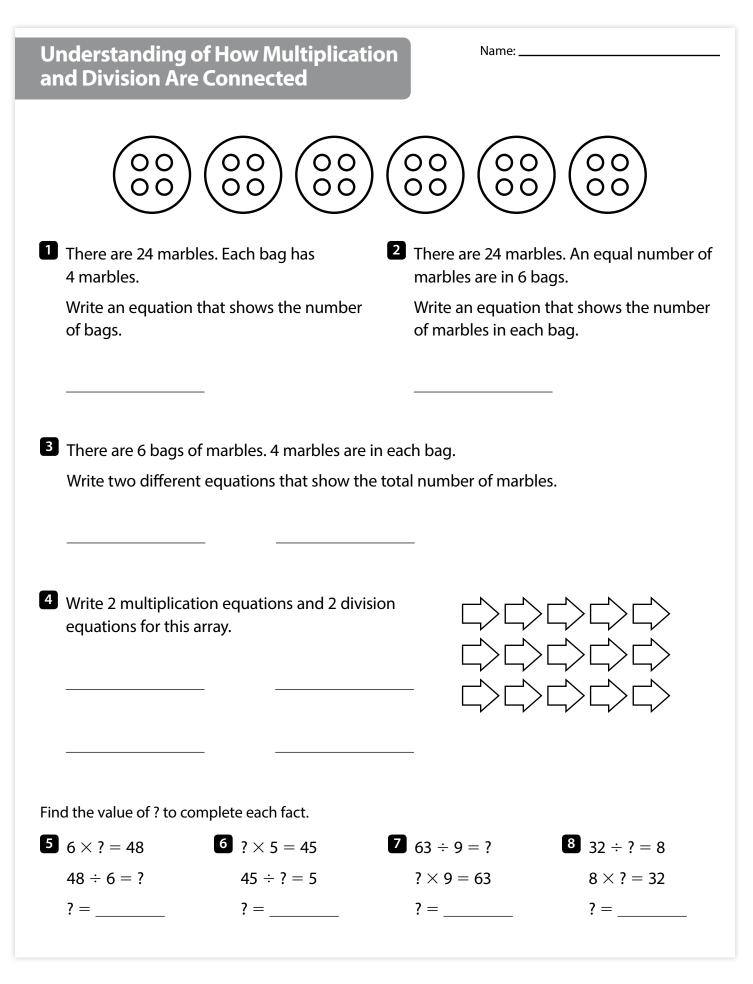


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Using Order and Grouping to Multiply Name: Order and group the factors to show how you want to multiply. Then find the product. 1 $5 \times 7 \times 2$ **2** $\quad 3 \times 5 \times 3$ $3 4 \times 8 \times 2$ $5 \times 2 \times 7$ $(5 \times 2) \times 7$ $10 \times 7 = 70$ 4 $2 \times 9 \times 5$ 5 $2 \times 10 \times 5$ $6 \quad 2 \times 8 \times 2$ 7 $3 \times 9 \times 3$ 8 $5 \times 2 \times 6$ 9 $4 \times 5 \times 2$ 10 $2 \times 9 \times 2$ 11 $3 \times 8 \times 2$ 12 $4 \times 2 \times 7$ 13 What strategies did you use to decide how to order and group the factors? ¹⁴ Why do you need to reorder factors in some problems?

Understanding of Division N	lodels	Name:
Draw a model to show 12 ÷ 6. Sho	w 6 equal groups. How	many are in each group?
There are 12 in all. There are 6 equa 12 ÷ 6 = Draw a model to show 12 ÷ 6. Sho		
There are 12 in all. There are 6 in each $12 \div 6 = $	ach group. There are	groups.
3 Draw an array to find $21 \div 3$.	4 Draw an	array to find $20 \div 4$.
21 ÷ 3 =	20 ÷ 4 =	=
5 What situation could be modeled w	with the equation 40 \div	8 = 5?



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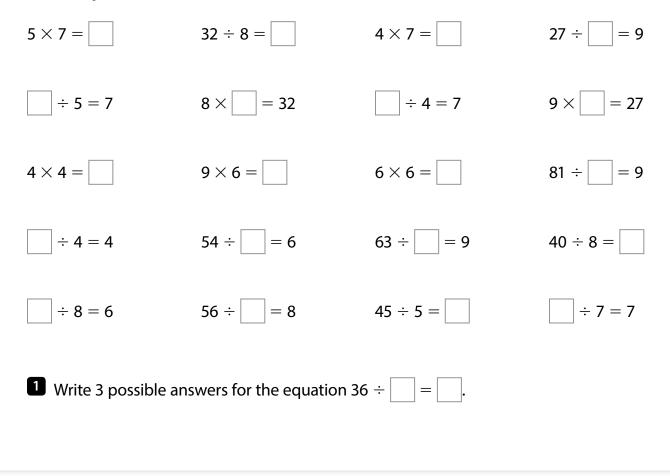
Working with Division Facts Name: _____ The answers are mixed up at the bottom of the page. Cross out the answers as you complete the problems. **1** $40 \div 4 =$ **2** $18 \div 3 =$ **2 3** 24 ÷ 4 = _____ **4** $24 \div 8 =$ 5 14 ÷ 2 = 6 40 ÷ 8 = **9** 32 ÷ 8 = _____ 7 42 ÷ 7 = _____ 8 64 ÷ 8 = _____ **12** 28 ÷ 7 = _____ 11 27 ÷ 9 = _____ 10 56 ÷ 8 = _____ **13** 72 ÷ 8 = **14** 90 ÷ 9 = _____ 15 54 ÷ 9 = **16** 48 ÷ 8 = 17 49 ÷ 7 = 18 27 ÷ 3 = **Answers:** 7 4 4 9 10 6 5 10 3 3 6 7 7 9 8 6 6 6

Name: _

Using a Multiplication Table

×	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

Write the missing numbers in the boxes to make each multiplication or division problem true.



Understanding of Patterns Name: ____ Solve. Look for patterns. 1 Subtract. 20 - 1 = _____ 30 - 1 = _____ 10 - 1 = _____ 100 - 1 = _____ 200 - 1 = _____ 300 - 1 = _____ 300 - 100 = 200 - 100 = 400 - 100 = 300 - 101 = _____ 200 - 101 = _____ 400 - 101 = _____ 2 Multiply. 2 × 9 = 2 × 10 = 3 × 10 = _____ 3 × 9 = _____ 4 × 9 = 4 × 10 = _____ 5 × 9 = 5 × 10 = 6 × 9 = ____ $6 \times 10 =$ 7 × 10 = _____ 7 × 9 = _____ 8 × 10 = 8 × 9 = $9 \times 9 =$ 9 × 10 = _____

3 Describe the patterns that you notice in the problems you just solved.

Solving Problems About Equal Groups	Name:
Read and solve each problem. Show your work.	
Heather has 18 photographs of rockets. She wants to hang them on 3 different walls in her room. Each wall will have the same number of photographs. How many photographs will hang on each wall?	There are 24 people who want to play volleyball. The coach divides the players into teams of 6. How many teams can she make?
There will be photographs on each wall.	The coach can make teams.
At an art show, there are 7 groups of paintings with 6 paintings in each group. How many paintings are there in all?	Jasmine reads for 10 minutes each night. If she reads for 5 nights, how many minutes will she read in all?
There are paintings.	Jasmine will read for minutes.
5 Rhonda plants 28 tomato plants in her garden. She plants 7 tomato plants in each row. How many rows does she plant?	Mr. Jones buys 6 packages of pencils. There are 8 pencils in each package. How many pencils does Mr. Jones buy?
Rhonda plants rows.	Mr. Jones buys pencils.
7 Choose one problem. Describe the strategy you	used to solve it.

Solving Problems About Arrays	Name:
Read and solve each problem. Show your work	κ.
A parking lot has 6 rows of parking spaces. There are 5 spaces in each row. How many parking spaces are in the lot?	2 Jack has 36 toy robots. He wants to display 9 on each shelf in his room. How many shelves will Jack need to display all of the robots?
There are parking spaces.	Jack will need shelves.
³ There are 24 dancers. The teacher has them stand in 3 equal rows. How many dancers are in each row?	⁴ Emily is putting away plates. She puts 6 plates each in 3 stacks. How many plates does she put away?
There are dancers in each row.	Emily puts away plates.
A farmer picks 54 pumpkins. She places an equal number of pumpkins in 9 wagons. How many pumpkins are in each wagon?	⁶ The school band marches in rows at the parade. There are 24 band members and they form rows with 4 members in each row. How many rows are there?
There are pumpkins in each wagon.	There are rows.
Choose one problem. Describe and use a strat	tegy to check your answer.

Solving Problems About Area Name: Read and solve each problem. Show your work. 1 Nya covers a rectangular tray with 2 Jacob uses tiles to cover a rectangular 1-square-inch tiles. She uses 42 tiles, hallway. Each tile has an area of 1 square arranged in 7 rows. How many tiles are foot. He uses 3 rows of tiles, with 8 tiles in in each row? each row. What is the area of the hallway? The area of the hallway is _____ There are ______ tiles in each row. square feet. 3 Sara covers the top of a box with squares ⁴ There are 64 squares on Rasha's chessboard. of paper that are 1 square centimeter. Each square is 1 square inch. There are She uses 48 squares, with 6 squares in 8 rows of squares on her chessboard. each row. How many rows did she make? How many squares are in each row? There are ______ squares in each row. Sara made _____ rows. 5 A rectangular patio at an outdoor 6 Mr. Reilly uses square pieces of fabric that restaurant is made of 35 tiles. Each tile is are each 1 square inch for a rectangular 1 square yard. If there are 5 tiles in each wall hanging. He uses 81 squares. If he row, how many rows are there? makes 9 rows of squares, how many squares will be in each row? There are _____ rows of tiles. There will be ______ squares in each row. **Z** Choose one problem. Describe the strategy you used to solve it. 8 Explain why you chose that strategy to solve the problem.

Name: ____

Solving Two-Step Word Problems Using Two Equations

Read and solve each problem by writing an equation for each step. Use letters for the unknown numbers. Show your work.

- Hirami has 12 cups of flour in a bag and 6 cups of flour in a jar. He is making batches of bread that each call for 3 cups of flour. How many batches of bread can Hirami make?
- 2 Cassi bought 50 pounds of dirt. She used 10 pounds to fill a hole in her yard. Then she filled pots with 5 pounds of soil in each pot. How many pots could she fill?

Hirami can make _____ batches of bread.

Becky has 6 packages of clay that each weigh 5 pounds. To make a bowl, she needs 3 pounds of clay. How many bowls can Becky make? Cassi can fill _____ pots.

 Marc has 36 pounds of apples to use to make pies. He uses 4 pounds of apples for each pie. Marc uses all of the apples to make pies, and then sells each pie for \$8.
How much money does Marc collect for all the pies?

Becky can make _____ bowls.

Marc collects \$ _____ for all the pies.

5 Choose one problem. Tell how you could solve the problem in a different way.

Name: _____

Solving Two-Step Word Problems Using One Equation

Read and solve each problem by writing one equation. Show your work.

- Mrs. Nelson has one \$10-bill and one \$20-bill. She wants to buy as many movie tickets as she can with this money. If movie tickets cost \$6 each, how many tickets, t, can she buy?
- 2 Daisy has a goal of reading 75 minutes in one week. She reads 9 minutes a day for 5 days. How many more minutes, *m*, will she have to read to reach her goal?

Mrs. Nelson can buy _____ tickets.

3 Mr. Garcia buys 3 bags of cat food that each weigh 9 pounds and another bag of cat food that weighs 7 pounds. How many pounds, *p*, of cat food did Mr. Garcia buy? Daisy will have to read _____ more minutes.

Jackson has 48 trading cards. His sister gives him 12 more cards. Then he puts all his trading cards in 6 equal stacks. How many cards, *c*, are in each stack?

Mr. Garcia bought _____ pounds of cat food.

There are _____ cards in each stack.

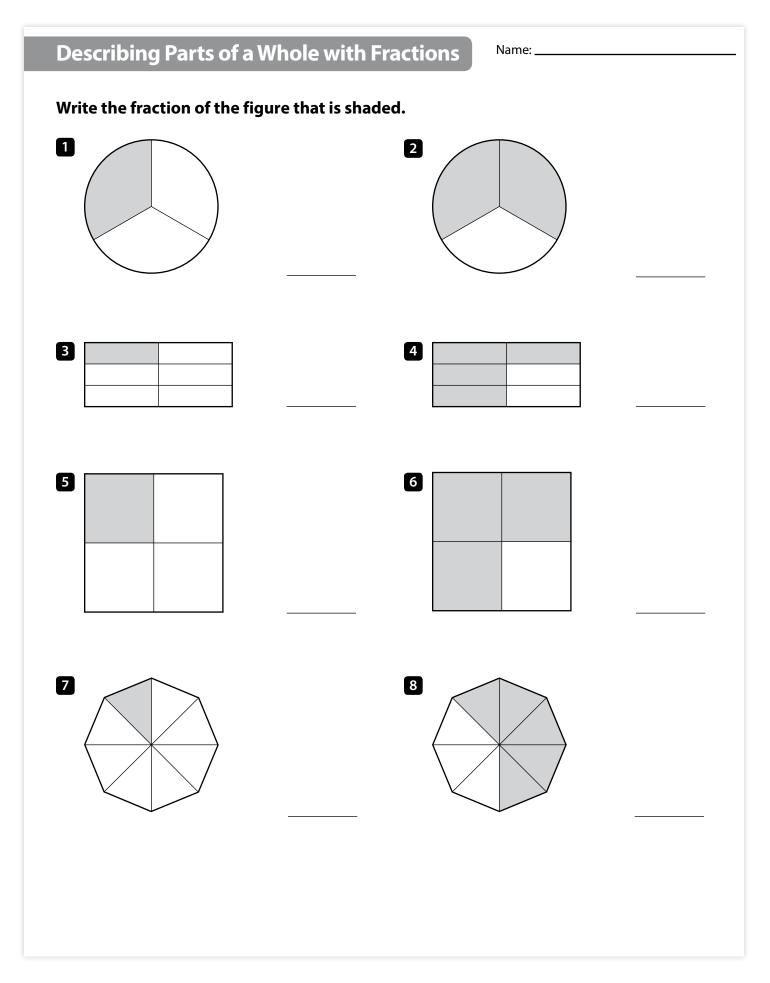
5 Choose one problem. Explain how you decided which operations to use to solve it.

Estimating Solutions to Word Problems

Name: _

Read each problem. Estimate the answer by rounding to the nearest ten.
Then find the actual answer. Show your work.

0	Marie has 231 toothpicks in one box and 175 toothpicks in another box. She uses 319 toothpicks to make a bridge. How many toothpicks does she have left?	Kennedy School has 124 third-grade students. Carter School has 16 fewer third-grade students than Kennedy School. How many third-grade students in all are at Kennedy School and Carter School?
	<i>Estimate:</i> There are about toothpicks left.	<i>Estimate:</i> There are about students.
	Marie has toothpicks left.	There are students.
3	There are 197 oak trees in the park. There are 27 more pine trees than oak trees in the park. How many trees are there in all?	On the first day of a bus trip, Brian and his dad traveled 341 miles. On the second day, they traveled 39 fewer miles. How many miles did they travel in all after two days?
	<i>Estimate:</i> There are about trees.	<i>Estimate:</i> They traveled about miles.
	There are trees in all.	They traveled miles.
5	How does an estimate help you decide if your ar	nswer is reasonable?



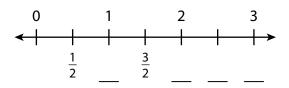
Describing Parts of a Whole with Fractions continued	Name:
9 Draw a circle that shows 4 equal part	s. Then shade to show $\frac{2}{4}$.
10 Draw a rectangle that shows 3 equal	parts. Then shade to show $\frac{2}{3}$.
11 Draw a square that shows 8 equal pa	rts. Then shade to show $\frac{3}{8}$.
Draw a circle that shows 6 equal part	s. Then shade to show $\frac{5}{6}$.

Understanding of Fractions on a Number Line

Name: ____

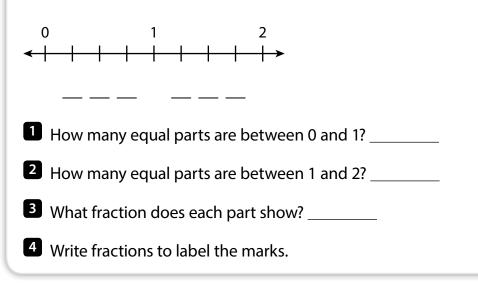


Write the missing labels on the number line.



Set B

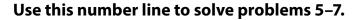
Use this number line to solve problems 1-4.

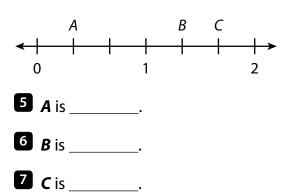


Understanding of Fractions on a Number Line continued

Name: _____

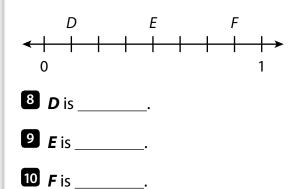
Set C





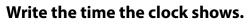
Set D

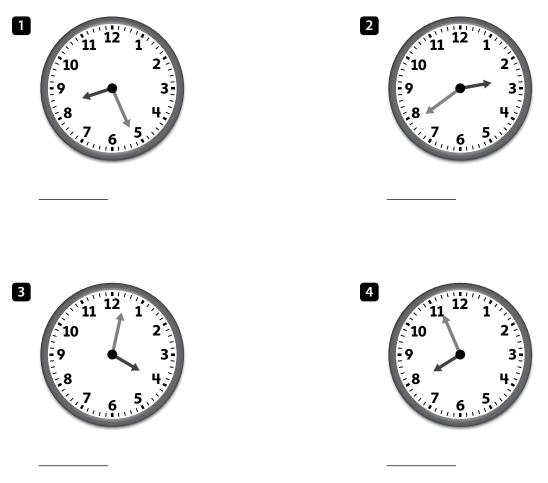
Use this number line to solve problems 8–10.



Telling Time to the Minute

Name: _





Draw hands on the clock to show the given time.

