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Grade 3 Mathematics
Teacher At-Home Activity Packet

The At-Home Activity Packet includes 26 sets of practice problems that align to important math concepts that have likely been taught this year.

Since pace varies from classroom to classroom, feel free to select the pages that align with the topics your students have covered.

The At-Home Activity Packet includes instructions to the parent and can be printed and sent home.

This At-Home Activity Packet—Teacher Guide includes all the same practice sets as the Student version with the answers provided for your reference.

See the Grade 3 Math concepts covered in this packet!

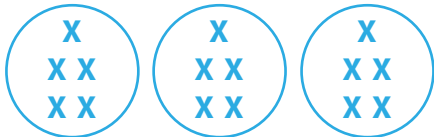# Grade 3 Math concepts covered in this packet

Grade 3 Math concepts covered in this packet (Continued)

1 Show 3 × 5 by drawing equal groups of 5.

Answers will vary. Possible answer shown.

Show 3 × 5 by drawing an array.

Answers will vary. Possible answer shown.
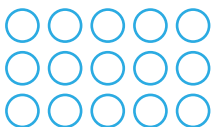
Complete the equation. 3 × 5 = __**15**__

2 Write an equation that matches the array.

2 × 6 = 12

3 Write an equation that matches the picture.
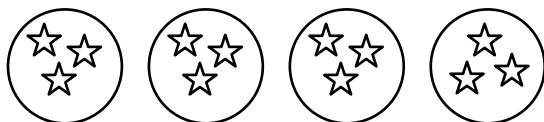
4 × 3 = 12

4 Use words to describe the drawing for problem 3.

Answers will vary. Possible answer: There are four groups of three stars. There are 12 stars in all.

Multiply.

1 $5 \times 2 =$ __10__

2 $2 \times 5 =$ __10__

3 $2 \times 10 =$ __20__

4 $10 \times 2 =$ __20__

5 $10 \times 5 =$ __50__

6 $5 \times 10 =$ __50__

7 $6 \times 2 =$ __12__

8 $2 \times 6 =$ __12__

9 $3 \times 10 =$ __30__

10 $10 \times 3 =$ __30__

11 $7 \times 2 =$ __14__

12 $2 \times 7 =$ __14__

13 $4 \times 10 =$ __40__

14 $10 \times 4 =$ __40__

15 $5 \times 4 =$ __20__

16 $4 \times 5 =$ __20__

17 $2 \times 2 =$ __4__

18 $5 \times 5 =$ __25__

19 $10 \times 10 =$ __100__

20 What patterns do you notice in the problems? Explain.

Answers will vary. Possible answer: I notice that if the two factors are the same, but in a different order, the product is also the same.

21 Draw a model to show how you solved one of the problems.

Answers will vary.

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

$3 \times 1 = \boxed{3}$ $\qquad$ $0 \times 7 = \boxed{0}$ $\qquad$ $5 \times 1 = \boxed{5}$ $\qquad$ $1 \times 0 = \boxed{0}$

$1 \times 7 = \boxed{7}$ $\qquad$ $4 \times \boxed{0} = 0$ $\qquad$ $4 \times \boxed{1} = 4$ $\qquad$ $9 \times \boxed{0} = 0$

$\boxed{3} \times 1 = 3$ $\qquad$ $\boxed{1} \times 9 = 9$ $\qquad$ $\boxed{0} \times 8 = 0$ $\qquad$ $\boxed{0} \times 6 = 0$

Write two factors to make each multiplication problem true. Possible answers shown.

$\boxed{5} \times \boxed{1} = 5$ $\qquad$ $\boxed{7} \times \boxed{1} = 7$ $\qquad$ $\boxed{2} \times \boxed{1} = 2$ $\qquad$ $\boxed{1} \times \boxed{1} = 1$

Write a digit in the box to make the multiplication problem true. Then use words to write about the groups.

$$\boxed{} \times 0 = 0$$

Answers will vary. Possible answer: 4 × 0 = 0. There are 4 groups and each group has 0 objects. There are 0 objects in all.

Multiply.

1 $2 \times 3 =$ __6__

2 $3 \times 2 =$ __6__

3 $10 \times 3 =$ __30__

4 $3 \times 10 =$ __30__

5 $5 \times 3 =$ __15__

6 $3 \times 5 =$ __15__

7 $4 \times 3 =$ __12__

8 $3 \times 4 =$ __12__

9 $9 \times 3 =$ __27__

10 $3 \times 9 =$ __27__

11 $1 \times 3 =$ __3__

12 $3 \times 1 =$ __3__

13 $8 \times 3 =$ __24__

14 $3 \times 8 =$ __24__

15 $6 \times 3 =$ __18__

16 $3 \times 6 =$ __18__

17 $7 \times 3 =$ __21__

18 $3 \times 7 =$ __21__

19 $0 \times 3 =$ __0__

20 $3 \times 3 =$ __9__

21 Tell how you could check that your answer to problem 9 is correct.

Answers will vary. Possible answer: I could add 9 three times: $9 + 9 + 9 = 27$.

22 Draw a model to show how you solved one of the problems.

Answers will vary.

Multiply.

1 $2 \times 4 =$ __8__ **2** $3 \times 4 =$ __12__ **3** $10 \times 4 =$ __40__ **4** $5 \times 4 =$ __20__

5 $7 \times 4 =$ __28__ **6** $6 \times 4 =$ __24__ **7** $8 \times 4 =$ __32__ **8** $9 \times 4 =$ __36__

9 $1 \times 4 =$ __4__ **10** $4 \times 5 =$ __20__ **11** $0 \times 4 =$ __0__ **12** $4 \times 10 =$ __40__

13 $4 \times 3 =$ __12__ **14** $4 \times 2 =$ __8__ **15** $4 \times 1 =$ __4__ **16** $4 \times 4 =$ __16__

17 Tell what strategy you used to solve 6×4.

Answers will vary. Possible answer: I broke 6×4 into 6×2 and 6×2. Then I added $12 + 12 = 24$.

18 Draw a model to show how you solved one of the problems.

Answers will vary.

Multiply.

1 $5 \times 6 =$ __30__

2 $3 \times 6 =$ __18__

3 $10 \times 6 =$ __60__

4 $2 \times 6 =$ __12__

5 $7 \times 6 =$ __42__

6 $4 \times 6 =$ __24__

7 $8 \times 6 =$ __48__

8 $1 \times 6 =$ __6__

9 $9 \times 6 =$ __54__

10 $6 \times 5 =$ __30__

11 $0 \times 6 =$ __0__

12 $6 \times 10 =$ __60__

13 $6 \times 3 =$ __18__

14 $6 \times 2 =$ __12__

15 $6 \times 5 =$ __30__

16 $6 \times 6 =$ __36__

17 Tell a strategy you can use to show 5×6.

Answers will vary. Possible answer: I can draw an array showing 5 rows with 6 in each row to show 30 in all.

18 Explain how problem 2 and problem 13 are related.

They have the same factors in a different order. They have the same product.

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The answers are mixed up at the bottom of the page. Cross out the answers as you complete the problems.

1 $3 \times 7 =$ ___21___

2 $6 \times 7 =$ ___42___

3 $8 \times 7 =$ ___56___

4 $2 \times 7 =$ ___14___

5 $9 \times 7 =$ ___63___

6 $1 \times 7 =$ ___7___

7 $7 \times 0 =$ ___0___

8 $10 \times 7 =$ ___70___

9 $4 \times 7 =$ ___28___

10 $5 \times 7 =$ ___35___

11 $7 \times 3 =$ ___21___

12 $0 \times 7 =$ ___0___

13 $7 \times 2 =$ ___14___

14 $7 \times 10 =$ ___70___

15 $7 \times 4 =$ ___28___

16 $7 \times 1 =$ ___7___

17 $7 \times 5 =$ ___35___

18 $7 \times 7 =$ ___49___

Answers

14	63	35	70	0	42
7	28	14	21	56	21
28	0	70	49	35	7

The answers are mixed up at the bottom of the page. Cross out the answers as you complete the problems.

1 $2 \times 8 =$ __16__

2 $6 \times 8 =$ __48__

3 $7 \times 8 =$ __56__

4 $3 \times 8 =$ __24__

5 $9 \times 8 =$ __72__

6 $1 \times 8 =$ __8__

7 $0 \times 8 =$ __0__

8 $10 \times 8 =$ __80__

9 $4 \times 8 =$ __32__

10 $5 \times 8 =$ __40__

11 $8 \times 3 =$ __24__

12 $8 \times 0 =$ __0__

13 $8 \times 2 =$ __16__

14 $8 \times 10 =$ __80__

15 $8 \times 4 =$ __32__

16 $8 \times 7 =$ __56__

17 $8 \times 5 =$ __40__

18 $8 \times 8 =$ __64__

Answers

64	40	48	8	0	56
72	80	24	32	16	32
24	0	80	40	56	16

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The answers are mixed up at the bottom of the page. Cross out the answers as you complete the problems.

1 $1 \times 9 =$ ___9___

2 $6 \times 9 =$ ___54___

3 $7 \times 9 =$ ___63___

4 $2 \times 9 =$ ___18___

5 $8 \times 9 =$ ___72___

6 $3 \times 9 =$ ___27___

7 $0 \times 9 =$ ___0___

8 $10 \times 9 =$ ___90___

9 $4 \times 9 =$ ___36___

10 $5 \times 9 =$ ___45___

11 $9 \times 3 =$ ___27___

12 $9 \times 8 =$ ___72___

13 $9 \times 2 =$ ___18___

14 $9 \times 10 =$ ___90___

15 $9 \times 4 =$ ___36___

16 $9 \times 7 =$ ___63___

17 $9 \times 5 =$ ___45___

18 $9 \times 9 =$ ___81___

Answers

63	45	18	81	90	36
72	54	27	36	72	63
90	0	18	9	27	45

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

$5 \times 6 = \boxed{30}$ $2 \times 6 = \boxed{12}$ $4 \times 5 = \boxed{20}$

$6 \times 5 = \boxed{30}$ $6 \times 2 = \boxed{12}$ $5 \times 4 = \boxed{20}$

$3 \times 8 = \boxed{24}$ $4 \times 7 = \boxed{28}$ $5 \times 9 = \boxed{45}$

$8 \times 3 = \boxed{24}$ $7 \times 4 = \boxed{28}$ $9 \times 5 = \boxed{45}$

$9 \times 2 = \boxed{18}$ $\boxed{3} \times 5 = 15$ $7 \times 8 = \boxed{56}$

$2 \times \boxed{9} = 18$ $5 \times 3 = \boxed{15}$ $\boxed{8} \times 7 = 56$

$\boxed{7} \times 10 = 70$ $\boxed{2} \times 5 = 10$ $3 \times \boxed{4} = 12$

$10 \times \boxed{7} = 70$ $5 \times \boxed{2} = 10$ $\boxed{4} \times 3 = 12$

1 Look at 6×5 and 5×6. How does the order of the factors change the product?

Answers will vary. Possible answer: The order of the factors does not change the product.

2 Draw two arrays to show 4×7 and 7×4.

Answers will vary. Arrays should show 4 rows of 7 objects and 7 rows of 4 objects.

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Draw parentheses around the numbers you want to multiply first.
Then find the product. Groupings may vary. Possible groupings are shown.

1 $6 \times 3 \times 2$
$6 \times (3 \times 2)$
$6 \times 6 = 36$
Sample Student Work:
$3 \times 2 = 6; 6 \times 6 = 36$

2 $4 \times 3 \times 3$
$4 \times (3 \times 3)$
$3 \times 3 = 9, 4 \times 9 = 36$

3 $5 \times 2 \times 8$
$(5 \times 2) \times 8$
$5 \times 2 = 10, 10 \times 8 = 80$

4 $8 \times 2 \times 4$
$8 \times (2 \times 4)$
$2 \times 4 = 8, 8 \times 8 = 64$

5 $2 \times 2 \times 7$
$(2 \times 2) \times 7$
$2 \times 2 = 4, 4 \times 7 = 28$

6 $6 \times 5 \times 2$
$6 \times (5 \times 2)$
$5 \times 2 = 10, 6 \times 10 = 60$

7 $3 \times 3 \times 7$
$(3 \times 3) \times 7$
$3 \times 3 = 9, 9 \times 7 = 63$

8 $2 \times 4 \times 5$
$(2 \times 4) \times 5$
$2 \times 4 = 8, 8 \times 5 = 40$

9 $7 \times 4 \times 2$
$7 \times (4 \times 2)$
$4 \times 2 = 8, 7 \times 8 = 56$

10 $6 \times 3 \times 3$
$6 \times (3 \times 3)$
$3 \times 3 = 9, 6 \times 9 = 54$

11 $3 \times 3 \times 10$
$(3 \times 3) \times 10$
$3 \times 3 = 9, 9 \times 10 = 90$

12 $2 \times 3 \times 4$
$(2 \times 3) \times 4$
$2 \times 3 = 6, 6 \times 4 = 24$

13 How did you decide which factors to group?

Answers will vary. Possible answer: I looked for factors that were basic facts.

14 Choose one problem. Tell two ways you can group the factors. Then explain which way is easier for you to solve.

Answers will vary. Possible answer: $3 \times 3 \times 10 = 90$. I can group the factors: $(3 \times 3) \times 10$, or $3 \times (3 \times 10)$. It is easier for me to solve 9×10 because I know the 10 facts.

Order and group the factors to show how you want to multiply. Then find the product. Possible orders and grouping are shown.

1 $5 \times 7 \times 2$
$5 \times 2 \times 7$
$(5 \times 2) \times 7$
$10 \times 7 = 70$

2 $3 \times 5 \times 3$
$3 \times 3 \times 5$
$(3 \times 3) \times 5$
$9 \times 5 = 45$

3 $4 \times 8 \times 2$
$4 \times 2 \times 8$
$(4 \times 2) \times 8$
$8 \times 8 = 64$

4 $2 \times 9 \times 5$
$2 \times 5 \times 9$
$(2 \times 5) \times 9$
$10 \times 9 = 90$

5 $2 \times 10 \times 5$
$2 \times 5 \times 10$
$(2 \times 5) \times 10$
$10 \times 10 = 100$

6 $2 \times 8 \times 2$
$2 \times 2 \times 8$
$(2 \times 2) \times 8$
$4 \times 8 = 32$

7 $3 \times 9 \times 3$
$3 \times 3 \times 9$
$(3 \times 3) \times 9$
$9 \times 9 = 81$

8 $5 \times 2 \times 6$
$(5 \times 2) \times 6$
$10 \times 6 = 60$

9 $4 \times 5 \times 2$
$4 \times 2 \times 5$
$(4 \times 2) \times 5$
$8 \times 5 = 40$

10 $2 \times 9 \times 2$
$2 \times 2 \times 9$
$(2 \times 2) \times 9$
$4 \times 9 = 36$

11 $3 \times 8 \times 2$
$3 \times 2 \times 8$
$(3 \times 2) \times 8$
$6 \times 8 = 48$

12 $4 \times 2 \times 7$
$(4 \times 2) \times 7$
$8 \times 7 = 56$

**13** What strategies did you use to decide how to order and group the factors?

Answers will vary. Possible answer: I looked for factors with a product that was 10 or less. I wrote those factors next to each other, and multiplied them first.

14 Why do you need to reorder factors in some problems?

Answers will vary. Possible answer: If you don't know how to multiply two factors, and more than two factors are given, you can write the factors in another order and group factors together that are easier to multiply.

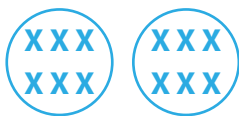**1** Draw a model to show 12 ÷ 6. Show 6 equal groups. How many are in each group?

Possible picture shown.

X X   X X   X X   X X   X X   X X
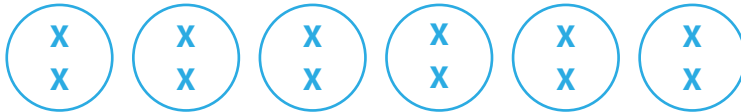
There are 12 in all. There are 6 equal groups. There are ____**2**____ in each group.
12 ÷ 6 = ____**2**____

2 Draw a model to show 12 ÷ 6. Show 6 in each group. How many groups are there?

Possible picture shown.

X X X / X X X   X X X / X X X

There are 12 in all. There are 6 in each group. There are ____**2**____ groups.
12 ÷ 6 = ____**2**____

3 Draw an array to find 21 ÷ 3.

Answers will vary. Possible Answer:
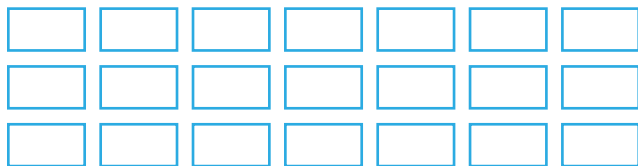
21 ÷ 3 = ____**7**____

4 Draw an array to find 20 ÷ 4.

Answers will vary. Possible Answer:
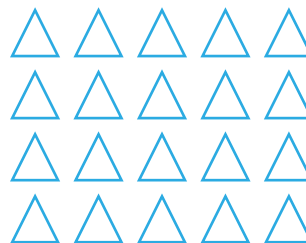
20 ÷ 4 = ____**5**____

5 What situation could be modeled with the equation 40 ÷ 8 = 5?

Answers will vary. Possible answer: 40 coins shared equally with 8 people would be 5 coins per person.
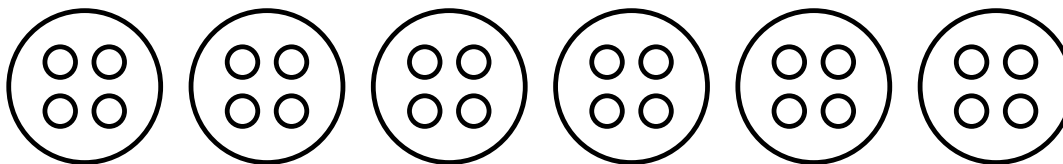
1 There are 24 marbles. Each bag has 4 marbles.

Write an equation that shows the number of bags.

$24 \div 4 = 6$

2 There are 24 marbles. An equal number of marbles are in 6 bags.

Write an equation that shows the number of marbles in each bag.

$24 \div 6 = 4$

3 There are 6 bags of marbles. 4 marbles are in each bag.

Write two different equations that show the total number of marbles.

$6 \times 4 = 24$ $4 \times 6 = 24$

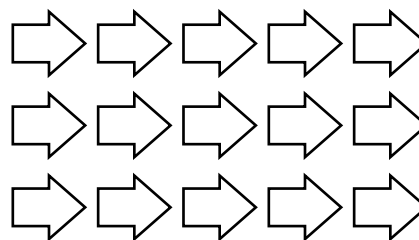**4** Write 2 multiplication equations and 2 division equations for this array.

$3 \times 5 = 15$ $5 \times 3 = 15$

$15 \div 3 = 5$ $15 \div 5 = 3$

Find the value of ? to complete each fact.

5 $6 \times ? = 48$

$48 \div 6 = ?$

$? = \underline{\quad 8 \quad}$

6 $? \times 5 = 45$

$45 \div ? = 5$

$? = \underline{\quad 9 \quad}$

7 $63 \div 9 = ?$

$? \times 9 = 63$

$? = \underline{\quad 7 \quad}$

8 $32 \div ? = 8$

$8 \times ? = 32$

$? = \underline{\quad 4 \quad}$

The answers are mixed up at the bottom of the page. Cross out the answers as you complete the problems.

1 $40 \div 4 =$ __**10**__

2 $18 \div 3 =$ __**6**__

3 $24 \div 4 =$ __**6**__

4 $24 \div 8 =$ __**3**__

5 $14 \div 2 =$ __**7**__

6 $40 \div 8 =$ __**5**__

7 $42 \div 7 =$ __**6**__

8 $64 \div 8 =$ __**8**__

9 $32 \div 8 =$ __**4**__

10 $56 \div 8 =$ __**7**__

11 $27 \div 9 =$ __**3**__

12 $28 \div 7 =$ __**4**__

13 $72 \div 8 =$ __**9**__

14 $90 \div 9 =$ __**10**__

15 $54 \div 9 =$ __**6**__

16 $48 \div 8 =$ __**6**__

17 $49 \div 7 =$ __**7**__

18 $27 \div 3 =$ __**9**__

Answers:

4	4	9	6	7	10
5	10	3	3	6	7
8	6	6	7	6	9

×	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.

$5 \times 7 = \boxed{35}$

$32 \div 8 = \boxed{4}$

$4 \times 7 = \boxed{28}$

$27 \div \boxed{3} = 9$

$\boxed{35} \div 5 = 7$

$8 \times \boxed{4} = 32$

$\boxed{28} \div 4 = 7$

$9 \times \boxed{3} = 27$

$4 \times 4 = \boxed{16}$

$9 \times 6 = \boxed{54}$

$6 \times 6 = \boxed{36}$

$81 \div \boxed{9} = 9$

$\boxed{16} \div 4 = 4$

$54 \div \boxed{9} = 6$

$63 \div \boxed{7} = 9$

$40 \div 8 = \boxed{5}$

$\boxed{48} \div 8 = 6$

$56 \div \boxed{7} = 8$

$45 \div 5 = \boxed{9}$

$\boxed{49} \div 7 = 7$

1 Write 3 possible answers for the equation $36 \div \boxed{} = \boxed{}$.

Answers will vary. Possible answers: $36 \div 6 = 6$, $36 \div 4 = 9$, $36 \div 9 = 4$

Solve. Look for patterns.

1 Subtract.

$10 - 1 =$ ___**9**___ $20 - 1 =$ ___**19**___ $30 - 1 =$ ___**29**___

$100 - 1 =$ ___**99**___ $200 - 1 =$ ___**199**___ $300 - 1 =$ ___**299**___

$200 - 100 =$ ___**100**___ $300 - 100 =$ ___**200**___ $400 - 100 =$ ___**300**___

$200 - 101 =$ ___**99**___ $300 - 101 =$ ___**199**___ $400 - 101 =$ ___**299**___

2 Multiply.

$2 \times 10 =$ ___**20**___ $2 \times 9 =$ ___**18**___

$3 \times 10 =$ ___**30**___ $3 \times 9 =$ ___**27**___

$4 \times 10 =$ ___**40**___ $4 \times 9 =$ ___**36**___

$5 \times 10 =$ ___**50**___ $5 \times 9 =$ ___**45**___

$6 \times 10 =$ ___**60**___ $6 \times 9 =$ ___**54**___

$7 \times 10 =$ ___**70**___ $7 \times 9 =$ ___**63**___

$8 \times 10 =$ ___**80**___ $8 \times 9 =$ ___**72**___

$9 \times 10 =$ ___**90**___ $9 \times 9 =$ ___**81**___

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

Answers will vary.

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Read and solve each problem. Show your work.

1 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 will be ___**6**___ photographs on each wall.

2 There are 24 people who want to play volleyball. The coach divides the players into teams of 6. How many teams can she make?

The coach can make ___**4**___ teams.

3 At an art show, there are 7 groups of paintings with 6 paintings in each group. How many paintings are there in all?

There are ___**42**___ paintings.

4 Jasmine reads for 10 minutes each night. If she reads for 5 nights, how many minutes will she read in all?

Jasmine will read for ___**50**___ minutes.

5 Rhonda plants 28 tomato plants in her garden. She plants 7 tomato plants in each row. How many rows does she plant?

Rhonda plants ___**4**___ rows.

6 Mr. Jones buys 6 packages of pencils. There are 8 pencils in each package. How many pencils does Mr. Jones buy?

Mr. Jones buys ___**48**___ pencils.

7 Choose one problem. Describe the strategy you used to solve it.

Answers will vary. Possible answer: In problem 4, I drew an array with 10 objects in 5 rows, for a total of 50 objects.

Read and solve each problem. Show your work.

1 A parking lot has 6 rows of parking spaces. There are 5 spaces in each row. How many parking spaces are in the lot?

There are _____**30**_____ parking spaces.

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?

Jack will need _____**4**_____ shelves.

3 There are 24 dancers. The teacher has them stand in 3 equal rows. How many dancers are in each row?

There are _____**8**_____ dancers in each row.

4 Emily is putting away plates. She puts 6 plates each in 3 stacks. How many plates does she put away?

Emily puts away _____**18**_____ plates.

5 A farmer picks 54 pumpkins. She places an equal number of pumpkins in 9 wagons. How many pumpkins are in each wagon?

There are _____**6**_____ pumpkins 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 _____**6**_____ rows.

7 Choose one problem. Describe and use a strategy to check your answer.

Answers will vary. Possible answer: In problem 3, I can use multiplication to check my answer: $8 \times 3 = 24$.

Read and solve each problem. Show your work.

1 Nya covers a rectangular tray with 1-square-inch tiles. She uses 42 tiles, arranged in 7 rows. How many tiles are in each row?

There are _____**6**_____ tiles in each row.

2 Jacob uses tiles to cover a rectangular hallway. Each tile has an area of 1 square foot. He uses 3 rows of tiles, with 8 tiles in each row. What is the area of the hallway?

The area of the hallway is _____**24**_____ square feet.

3 Sara covers the top of a box with squares of paper that are 1 square centimeter. She uses 48 squares, with 6 squares in each row. How many rows did she make?

Sara made _____**8**_____ rows.

4 There are 64 squares on Rasha's chessboard. Each square is 1 square inch. There are 8 rows of squares on her chessboard. How many squares are in each row?

There are _____**8**_____ squares in each row.

5 A rectangular patio at an outdoor restaurant is made of 35 tiles. Each tile is 1 square yard. If there are 5 tiles in each row, how many rows are there?

There are _____**7**_____ rows of tiles.

6 Mr. Reilly uses square pieces of fabric that are each 1 square inch for a rectangular wall hanging. He uses 81 squares. If he makes 9 rows of squares, how many squares will be in each row?

There will be _____**9**_____ squares in each row.

7 Choose one problem. Describe the strategy you used to solve it.

Answers will vary. Possible answer: In problem 3, I drew an array with 6 squares in a row. Then I drew rows of 6 until I had 48 squares. I counted the number of rows.

8 Explain why you chose that strategy to solve the problem.

Answers will vary.

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. **Possible equations shown.**

1 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?

$12 + 6 = c$

$18 = c$

$18 \div 3 = b$

$6 = b$

Hirami can make __**6**__ batches of bread.

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?

$50 - 10 = d$

$40 = d$

$40 \div 5 = p$

$8 = p$

Cassi can fill __**8**__ pots.

3 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?

$6 \times 5 = p$

$30 = p$

$30 \div 3 = b$

$10 = b$

Becky can make __**10**__ bowls.

4 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?

$36 \div 4 = p$

$9 = p$

$9 \times 8 = m$

$72 = m$

Marc collects $ __**72**__ for all the pies.

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

Answers will vary. Possible answer: In problem 1, I could divide 12 and 6 each by 3, and then add the quotients: $12 \div 3 = 4$; $6 \div 3 = 2$; $4 + 2 = 6$.

Read and solve each problem by writing one equation.
Show your work. **Possible equations shown.**

1 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?

$(10 + 20) \div 6 = t$
$30 \div 6 = t$
$5 = t$

Mrs. Nelson can buy ____**5**____ tickets.

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?

$(9 \times 5) + m = 75$
$45 + m = 75$
$m = 30$

Daisy will have to read ____**30**____ more minutes.

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?

$(3 \times 9) + 7 = p$
$27 + 7 = p$
$34 = p$

Mr. Garcia bought ____**34**____ pounds of cat food.

4 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?

$(48 + 12) \div 6 = c$
$60 \div 6 = c$
$10 = c$

There are ____**10**____ cards in each stack.

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

Answers will vary. Possible answer: In problem 1, I needed to find the total amount of money first. Since the amounts were not equal, I added. Then I had to find the number of times the sum could be divided by 6.

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

1 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?

Estimate: There are about ___90___ toothpicks left.

Marie has ___87___ toothpicks left.

2 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?

Estimate: There are about ___220___ students.

There are ___232___ 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?

Estimate: There are about ___430___ trees.

There are ___421___ trees in all.

4 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?

Estimate: They traveled about ___640___ miles.

They traveled ___643___ miles.

5 How does an estimate help you decide if your answer is reasonable?

Answers will vary. Possible answer: If my estimate is close to the exact answer, then my exact answer is reasonable.

Write the fraction of the figure that is shaded.

1
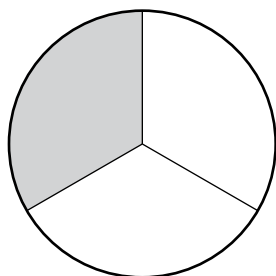
$\dfrac{1}{3}$

2
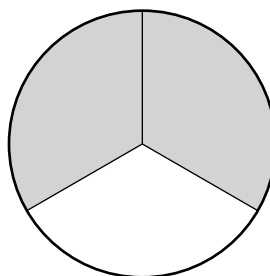
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3
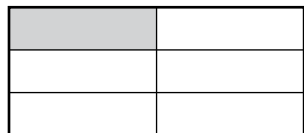
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4
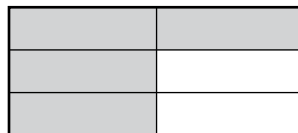
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5
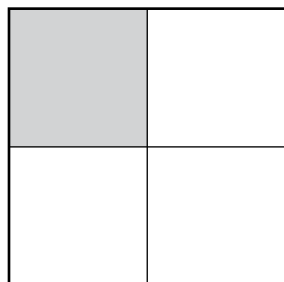
$\dfrac{1}{4}$

6
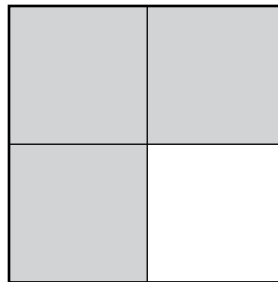
$\dfrac{3}{4}$

7
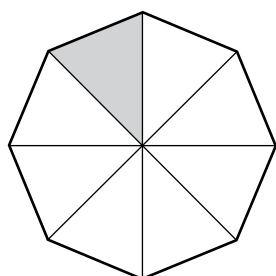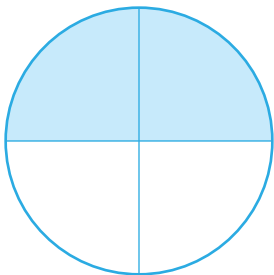
$\dfrac{1}{8}$

8
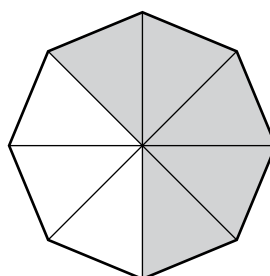
$\dfrac{5}{8}$

9 Draw a circle that shows 4 equal parts. Then shade to show $\frac{2}{4}$.
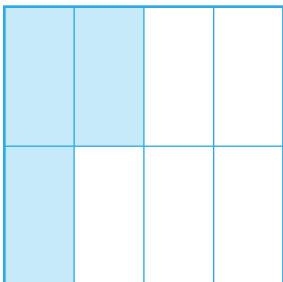
Possible answer shown.

10 Draw a rectangle that shows 3 equal parts. Then shade to show $\frac{2}{3}$.
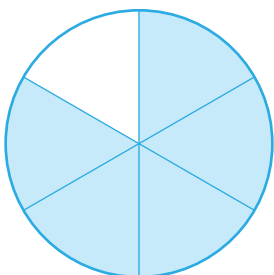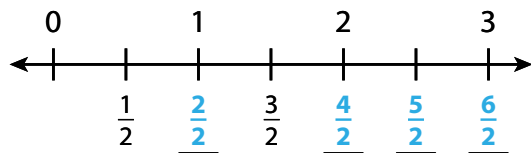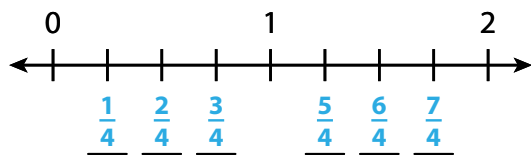
Possible answer shown.

11 Draw a square that shows 8 equal parts. Then shade to show $\frac{3}{8}$.

Possible answer shown.

12 Draw a circle that shows 6 equal parts. Then shade to show $\frac{5}{6}$.

Possible answer shown.

Set A

Write the missing labels on the number line.

$$0 \qquad 1 \qquad 2 \qquad 3$$

$$\frac{1}{2} \quad \frac{2}{2} \quad \frac{3}{2} \quad \frac{4}{2} \quad \frac{5}{2} \quad \frac{6}{2}$$

Set B

Use this number line to solve problems 1–4.

$$0 \qquad\qquad 1 \qquad\qquad 2$$

$$\frac{1}{4} \quad \frac{2}{4} \quad \frac{3}{4} \qquad \frac{5}{4} \quad \frac{6}{4} \quad \frac{7}{4}$$

1 How many equal parts are between 0 and 1? _____**4**_____

2 How many equal parts are between 1 and 2? _____**4**_____

3 What fraction does each part show? _____$\frac{1}{4}$_____

4 Write fractions to label the marks.

Set C

Use this number line to solve problems 5–7.
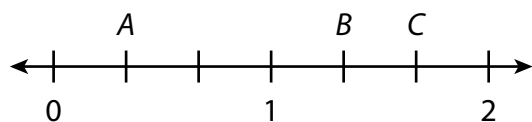
5 *A* is ___ $\frac{1}{3}$ ___.

6 *B* is ___ $\frac{4}{3}$ ___.

7 *C* is ___ $\frac{5}{3}$ ___.

Set D

Use this number line to solve problems 8–10.
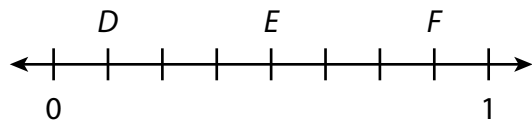
8 *D* is ___ $\frac{1}{8}$ ___.

9 *E* is ___ $\frac{4}{8}$ ___.

10 *F* is ___ $\frac{7}{8}$ ___.

Write the time the clock shows.

1
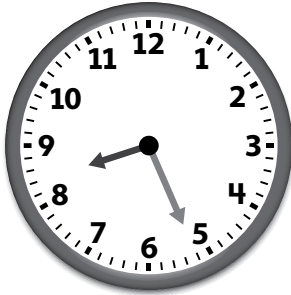
8:26

2
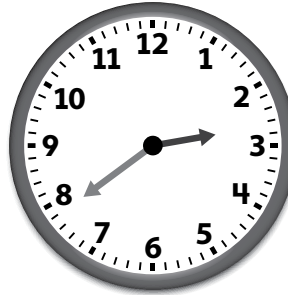
2:39

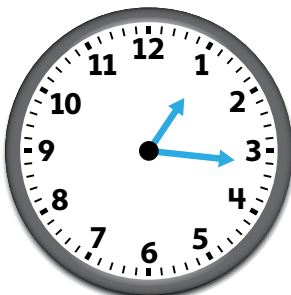**3**
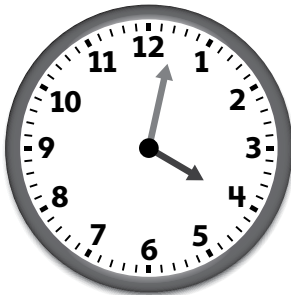
4:02

4
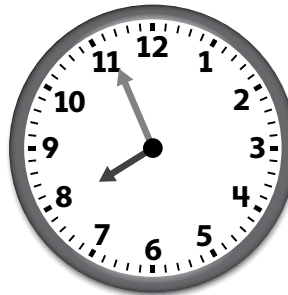
7:56

Draw hands on the clock to show the given time.
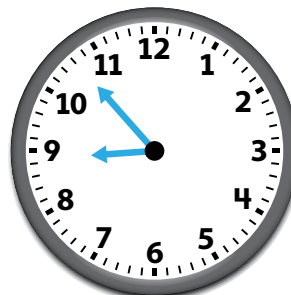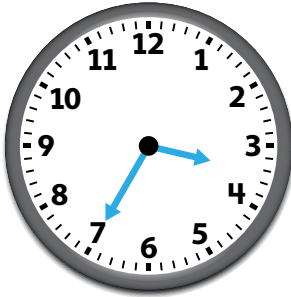
5 16 minutes after 1

6 7 minutes before 9

7 35 minutes after 3

8 26 minutes before 8

9 Write a word problem that could use one of the times shown on one of the clocks.

Answers will vary. Possible answer: Kara leaves for school at 26 minutes before 8. What is another way to write that time?