

Name _____

Practice and Homework Lesson 3.1

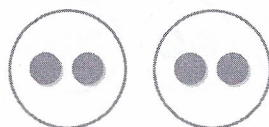
Count Equal Groups



COMMON CORE STANDARD—3.OA.A.1
Represent and solve problems involving multiplication and division.

Draw equal groups. Skip count to find how many.

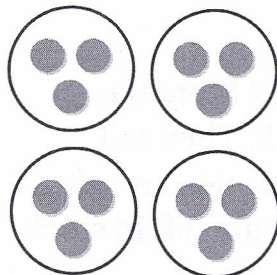
1. 2 groups of 2 4



2. 3 groups of 6 _____

Count equal groups to find how many.

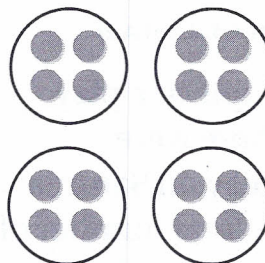
3.



_____ groups of _____

_____ in all

4.



_____ groups of _____

_____ in all

Problem Solving



5. Marcia puts 2 slices of cheese on each sandwich. She makes 4 cheese sandwiches. How many slices of cheese does Marcia use in all?

6. Tomas works in a cafeteria kitchen. He puts 3 cherry tomatoes on each of 5 salads. How many tomatoes does he use?

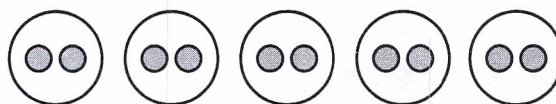
7. **WRITE** *Math* Write a problem that can be solved by using equal groups.

Lesson Check (3.OA.A.1)

1. Jen makes 3 bracelets. Each bracelet has 3 beads. How many beads does Jen use?



2. Ian has 5 cards to mail. Each card needs 2 stamps. How many stamps does Ian need?



Spiral Review (3.NBT.A.1, 3.NBT.A.2)

3. There were 384 people at a play on Friday night. There were 512 people at the play on Saturday night. Estimate the total number of people who attended the play on both nights.

4. Walking the Dog Pet Store has 438 leashes in stock. They sell 79 leashes during a one-day sale. How many leashes are left in stock after the sale?

5. The Lakeside Tour bus traveled 490 miles on Saturday and 225 miles on Sunday. About how many more miles did it travel on Saturday?

6. During one week at Jackson School, 210 students buy milk and 196 students buy juice. How many drinks are sold that week?



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Practice and Homework

Lesson 3.2

Relate Addition and Multiplication



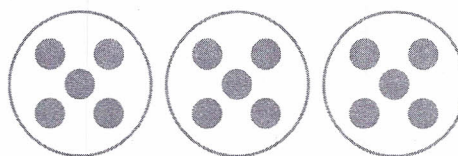
COMMON CORE STANDARD—3.OA.A.1
Represent and solve problems involving multiplication and division.

Draw a quick picture to show the equal groups. Then write related addition and multiplication sentences.

1. 3 groups of 5

$$\underline{5} + \underline{5} + \underline{5} = \underline{15}$$

$$\underline{3} \times \underline{5} = \underline{15}$$



2. 3 groups of 4

$$\underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

3. 5 groups of 2

$$\underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

Complete. Write a multiplication sentence.

4. $7 + 7 + 7 = \underline{\quad}$

$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

5. $3 + 3 + 3 = \underline{\quad}$

$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

Problem Solving



6. There are 6 jars of pickles in a box. Ed has 3 boxes of pickles. How many jars of pickles does he have? Write a multiplication sentence to find the answer.

$$\underline{\quad} \times \underline{\quad} = \underline{\quad} \text{ jars}$$

7. Each day, Jani rides her bike 5 miles. How many miles does Jani ride in 4 days? Write a multiplication sentence to find the answer.

$$\underline{\quad} \times \underline{\quad} = \underline{\quad} \text{ miles}$$

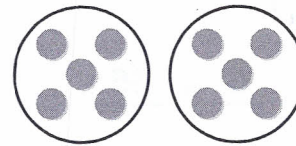
8. **WRITE Math** Write a word problem that involves combining three equal groups.

Lesson Check (3.OA.A.1)

1. What is another way to show

$$3 + 3 + 3 + 3 + 3 + 3?$$

2. Use the model. How many counters are there?



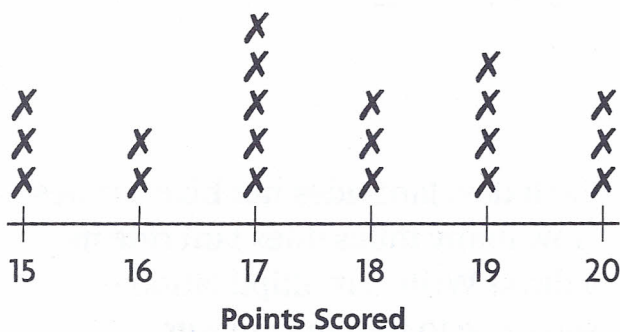
Spiral Review (3.NBT.A.1, 3.NBT.A.2, 3.MD.B.4)

3. A school gave 884 pencils to students on the first day of school. What is 884 rounded to the nearest hundred?

4. Find the difference.

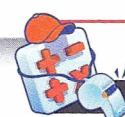
$$\begin{array}{r} 632 \\ - 274 \\ \hline \end{array}$$

5. The line plot below shows how many points Trevor scored in 20 games.



6. Darrien read 97 pages last week. Evan read 84 pages last week. How many pages did the boys read?

In how many games did Trevor score 18 points or fewer?



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Practice and Homework Lesson 3.3

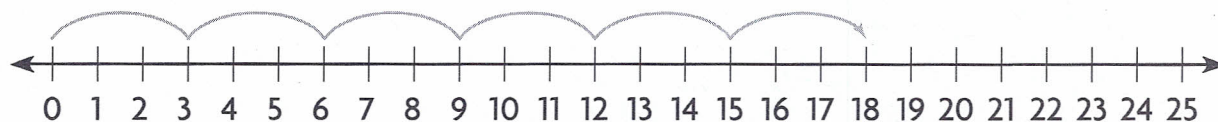
Skip Count on a Number Line

Draw jumps on the number line to show equal groups. Find the product.



COMMON CORE STANDARD—3.OA.A.3
Represent and solve problems involving multiplication and division.

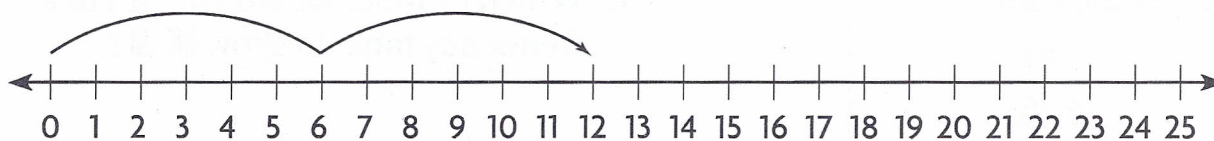
1. 6 groups of 3



$$6 \times 3 = \underline{18}$$

Write the multiplication sentence the number line shows.

2. 2 groups of 6



$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

Problem Solving



3. Allie is baking muffins for students in her class. There are 6 muffins in each baking tray. She bakes 5 trays of muffins. How many muffins is she baking?

4. A snack package has 4 cheese sticks. How many cheese sticks are in 4 packages?

5. **WRITE** *Math* Write a problem that can be solved by skip counting on a number line.

Lesson Check (3.OA.A.3)

1. Louise skip counts by 4 on a number line to find 5×4 . How many jumps should she draw on the number line?

2. Theo needs 4 boards that are each 3 feet long to make bookshelves. How many feet of boards does he need altogether?

Spiral Review (3.NBT.A.1, 3.MD.B.3)

3. Estimate the sum.

$$\begin{array}{r} 518 \\ +251 \\ \hline \end{array}$$

4. Which number would you put in a frequency table to show $\text{||||} \text{ III}$?

5. A manager at a shoe store received an order for 346 pairs of shoes. What is 346 rounded to the nearest hundred?

6. Toby is making a picture graph. Each picture of a book is equal to 2 books he has read. The row for Month 1 has 3 pictures of books. How many books did Toby read during Month 1?

Name _____

Practice and Homework

Lesson 3.4

Problem Solving • Model Multiplication

Draw a diagram to solve each problem.



COMMON CORE STANDARD—3.OA.D.8
Solve problems involving the four operations, and identify and explain patterns in arithmetic.

1. Robert put some toy blocks into 3 rows.
There are 5 blocks in each row. How many
blocks are there?

15 blocks

2. Mr. Fernandez is putting tiles on his
kitchen floor. There are 2 rows with
9 tiles in each row. How many tiles are
there?

3. In Jillian's garden, there are 3 rows of carrots,
2 rows of string beans, and 1 row of peas.
There are 8 plants in each row. How many
plants are there in the garden?

4. Maya visits the movie rental store. On one
wall, there are 6 DVDs on each of 5 shelves.
On another wall, there are 4 DVDs on each of
4 shelves. How many DVDs are there on the shelves?

5. The media center at Josh's school has a
computer area. The first 4 rows have
6 computers each. The fifth row has 4 computers.
How many computers are there?

6. **WRITE** *Math* Describe one kind of diagram you might draw
to help you solve a problem.

Lesson Check (3.OA.D.8)

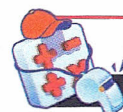
1. There are 5 shelves of video games in a video store. There are 6 video games on each shelf. How many video games are there on the shelves?
2. Ken watches a marching band. He sees 2 rows of flute players. Six people are in each row. He sees 8 trombone players. How many flute players and trombone players does Ken see?

Spiral Review (3.NBT.1, 3.NBT.2, 3.MD.3)

3. What is the sum of 438 and 382?
4. Estimate the sum.

$$\begin{array}{r} 622 \\ + 84 \\ \hline \end{array}$$

5. Francine uses 167 silver balloons and 182 gold balloons for her store party. How many silver and gold balloons does Francine use?
6. Yoshi is making a picture graph. Each picture of a soccer ball stands for two goals he scored for his team. The row for January has 9 soccer balls. How many goals did Yoshi score during January?



Name _____

Practice and Homework

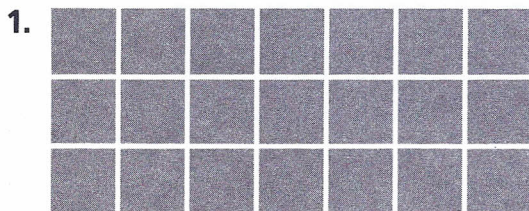
Lesson 3.5

Model with Arrays

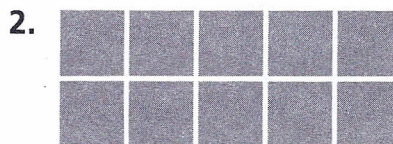


COMMON CORE STANDARD—3.OA.A.3
Represent and solve problems involving multiplication and division.

Write a multiplication sentence for the array.



$$3 \times 7 = \underline{21}$$



$$2 \times 5 = \underline{\quad}$$

Draw an array to find the product.

3. $4 \times 2 = \underline{\quad}$

4. $2 \times 8 = \underline{\quad}$

Problem Solving



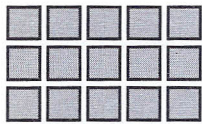
5. Lenny is moving tables in the school cafeteria. He places all the tables in a 7×4 array. How many tables are in the cafeteria?

6. Ms. DiMeo directs the school choir. She has the singers stand in 3 rows. There are 8 singers in each row. How many singers are there?

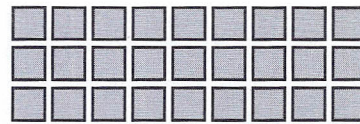
7. **WRITE** *Math* Write a word problem that can be solved by drawing an array. Then draw the array and solve the problem.

Lesson Check (3.OA.A.3)

1. What multiplication sentence does this array show?



2. What multiplication sentence does this array show?

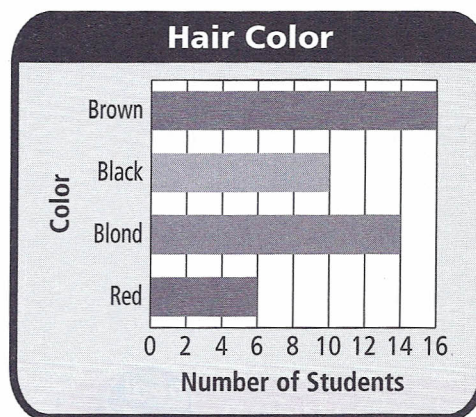


Spiral Review (3.NBT.A.1, 3.NBT.A.2, 3.MD.B.3)

3. Use the table to find who traveled 700 miles farther than Paul during summer vacation.

Summer Vacations	
Name	Distance in Miles
Paul	233
Andrew	380
Bonnie	790
Tara	933
Susan	853

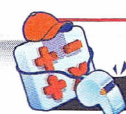
4. Use the bar graph to find what hair color most students have.



5. Spencer orders 235 cans of tomatoes to make salsa for the festival. What is 235 rounded to the nearest ten?

6. Which bar would be the longest on a bar graph of the data?

Favorite Pizza Topping	
Topping	Votes
Cheese	5
Pepperoni	4
Vegetable	1
Sausage	3



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Practice and Homework

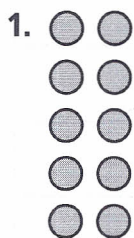
Lesson 3.6

Commutative Property of Multiplication



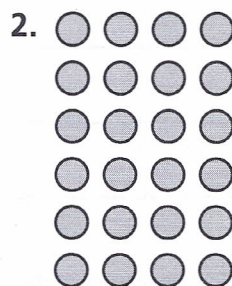
COMMON CORE STANDARD—3.OA.B.5
Understand properties of multiplication and the relationship between multiplication and division.

Write a multiplication sentence for the model. Then use the Commutative Property of Multiplication to write a related multiplication sentence.



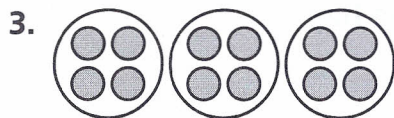
$$\underline{5} \times \underline{2} = \underline{10}$$

$$\underline{2} \times \underline{5} = \underline{10}$$



$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$



$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$



$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

Problem Solving



5. A garden store sells trays of plants. Each tray holds 2 rows of 8 plants. How many plants are in one tray?

6. Jeff collects toy cars. They are displayed in a case that has 4 rows. There are 6 cars in each row. How many cars does Jeff have?

7. **WRITE** *Math* How are the Commutative Property of Addition and the Commutative Property of Multiplication alike?

Lesson Check (3.OA.B.5)

1. Write a sentence that shows the Commutative Property of Multiplication.
2. What factor makes the number sentence true?

$$7 \times 4 = \square \times 7$$

Spiral Review (3.NBT.A.1, 3.NBT.A.2, 3.MD.B.3)

3. Ms. Williams drove 149 miles on Thursday and 159 miles on Friday. About how many miles did she drive altogether?
4. Inez has 699 pennies and 198 nickels. Estimate how many more pennies than nickels she has.

5. This year, the parade had 127 floats. That was 34 fewer floats than last year. How many floats were in the parade last year?
6. Jeremy made a tally table to record how his friends voted for their favorite pet. His table shows IIII IIII II next to Dog. How many friends voted for dog?



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Practice and Homework Lesson 3.7

Multiply with 1 and 0



COMMON CORE STANDARD—3.OA.B.5
Understand properties of multiplication and the relationship between multiplication and division.

Find the product.

1. $1 \times 4 = \underline{4}$

2. $0 \times 8 = \underline{\quad}$

3. $0 \times 4 = \underline{\quad}$

4. $1 \times 6 = \underline{\quad}$

5. $3 \times 0 = \underline{\quad}$

6. $0 \times 9 = \underline{\quad}$

7. $8 \times 1 = \underline{\quad}$

8. $1 \times 2 = \underline{\quad}$

9. $10 \times 1 = \underline{\quad}$

10. $2 \times 0 = \underline{\quad}$

11. $5 \times 1 = \underline{\quad}$

12. $1 \times 0 = \underline{\quad}$

13. $0 \times 0 = \underline{\quad}$

14. $1 \times 3 = \underline{\quad}$

15. $9 \times 0 = \underline{\quad}$

16. $1 \times 1 = \underline{\quad}$

Problem Solving



17. Peter is in the school play. His teacher gave 1 copy of the play to each of 6 students. How many copies of the play did the teacher hand out?

18. There are 4 egg cartons on the table. There are 0 eggs in each carton. How many eggs are there in all?

19. **WRITE** *Math* One group has 5 people, and each person has 1 granola bar. Another group has 5 people, and each person has 0 granola bars. Which group has more granola bars? Explain.

Lesson Check (3.OA.B.5)

1. There are 0 bicycles in each bicycle rack. If there are 8 bicycle racks, how many bicycles are there in the rack?
- _____

2. What is the product?

$$1 \times 0 = \underline{\quad}$$

Spiral Review (3.NBT.A.2, 3.OA.A.3, 3.MD.B.3)

3. Mr. Ellis drove 197 miles on Monday and 168 miles on Tuesday. How many miles did he drive?
- _____

4. What multiplication sentence does the array show?



Use the bar graph for 5–6.

5. How many cars were washed on Friday and Saturday combined?
- _____

6. How many more cars were washed on Saturday than on Sunday?
- _____

