

Name

MY Homework

Lesson 4

Arrays and Multiplication

Homework Helper



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The pumpkins in a patch are arranged in rows with an equal number in each row. How many pumpkins are in the patch?



Write an addition sentence and a multiplication sentence to show equal rows.

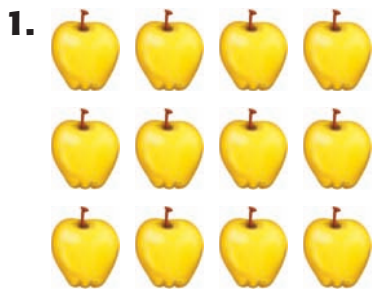
$$6 + 6 + 6 = 18 \quad 3 \times 6 = 18$$

The Commutative Property of Multiplication allows you to change the order of the factors to write another multiplication sentence, $6 \times 3 = 18$.

There are 18 pumpkins in the pumpkin patch.

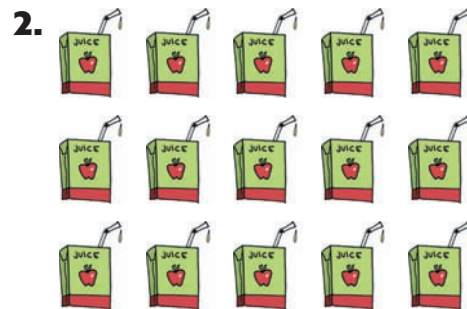
Practice

Write an addition sentence and a multiplication sentence to show equal rows.



$$\underline{4} + \underline{4} + \underline{4} = \underline{12}$$

$$\underline{3} \times \underline{4} = \underline{12}$$



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

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

Use the Commutative Property of Multiplication to find each missing number.

3. $3 \times 2 = 6$ 2 $\times 3 = 6$

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

5. $8 \times 6 = 48$ $6 \times 8 =$ 48

6. $5 \times 2 = 10$ 2 $\times 5 = 10$



Problem Solving

Draw an array to solve. Then write two multiplication sentences.

7. Bottles of syrup are arranged in 4 rows of 7 bottles each. How many bottles of syrup are there in all?

$4 \times 7 = 28$ bottles

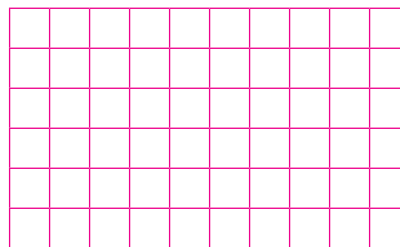
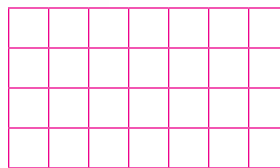
$7 \times 4 = 28$ bottles

8. A parking lot has 6 rows of 10 spaces. How many parking spaces are there altogether?

$6 \times 10 = 60$ parking spaces

$10 \times 6 = 60$ parking spaces

My Drawing!



Sample arrays shown.

Vocabulary Check



9. How can you use an array to show the Commutative Property?

Sample answer: Multiply the number of rows by the number of columns. Then turn the array. The product is the same.

Test Practice

10. Which pair of number sentences represents the Commutative Property of Multiplication?

(A) $3 \times 6 = 18$; $2 \times 9 = 18$

(C) $4 \times 5 = 20$; $8 \times 5 = 40$

(B) $6 \times 7 = 42$; $7 \times 6 = 42$

(D) $9 + 11 = 20$; $11 + 9 = 20$