

Arrays and Equal Groups

Rows of dots make multiplication!

Name: _____

Date: _____

1. Read the Array

Each row is a group. Count the rows. Count the dots in each row. Then write the equation.

a)



___ rows of ___ dots

___ $\times$ ___ = ___

b)



___ rows of ___ dots

___ $\times$ ___ = ___

c)



___ rows of ___ dots

___ $\times$ ___ = ___

d)



___ rows of ___ dots

___ $\times$ ___ = ___

2. Rows to Repeated Addition

Write an addition sentence for the rows. Then write the multiplication equation.

a) 3 rows of 5. ___ + ___ + ___ = ___

3 $\times$ 5 = ___

b) 4 rows of 2. ___ + ___ + ___ + ___ = ___

4 $\times$ 2 = ___

c) 2 rows of 10. ___ + ___ = ___

2 $\times$ 10 = ___

d) 5 rows of 4. ___ + ___ + ___ + ___ = ___

5 $\times$ 4 = ___

3. Draw the Array

Draw dots in rows to match. Then fill in the blanks.

a) Draw an array with 4 rows of 6 dots.



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

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

b) Draw an array with 3 rows of 5 dots.



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

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

c) Draw an array with 2 rows of 10 dots.



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

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

4. Flip the Array

Look at both arrays. Then answer the questions.

Array A:



3 rows of 4: $3 \times 4 = \underline{\quad}$

Array B:



4 rows of 3: $4 \times 3 = \underline{\quad}$

e) Do both arrays have the same number of dots? Circle one: yes / no

f) What do you notice? Include two empty writing lines.

g) $2 \times 5 = 10$, so $5 \times 2 = \underline{\quad}$

h) $4 \times 5 = 20$, so $5 \times 4 = \underline{\quad}$

Answer Key: Arrays and Equal Groups

Section 1

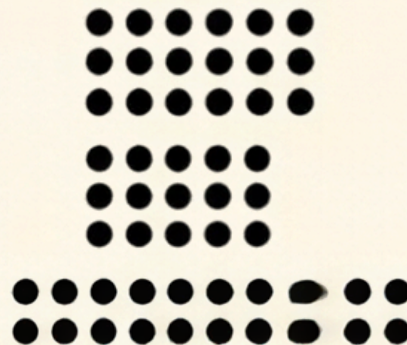
- a) 2 rows of 5 dots; $2 \times 5 = 10$
- b) 3 rows of 4 dots; $3 \times 4 = 12$
- c) 5 rows of 3 dots; $5 \times 3 = 15$
- d) 4 rows of 2 dots; $4 \times 2 = 8$

Section 2

- a) $5 + 5 + 5 = 15$; $3 \times 5 = 15$
- b) $2 + 2 + 2 + 2 = 8$; $4 \times 2 = 8$
- c) $10 + 10 = 20$; $2 \times 10 = 20$
- d) $4 + 4 + 4 + 4 + 4 = 20$; $5 \times 4 = 20$

Section 3

- a) $6 + 6 + 6 + 6 = 24$; $4 \times 6 = 24$
- b) $5 + 5 + 5 = 15$; $3 \times 5 = 15$
- c) $10 + 10 = 20$; $2 \times 10 = 20$.



Section 4

$3 \times 4 = 12$; $4 \times 3 = 12$; e) yes

Answers will vary. Students should notice that the two arrays have the same dots, and that changing the order of the factors does not change the product.

- g) 10 h) 20