

# MATH JOURNAL

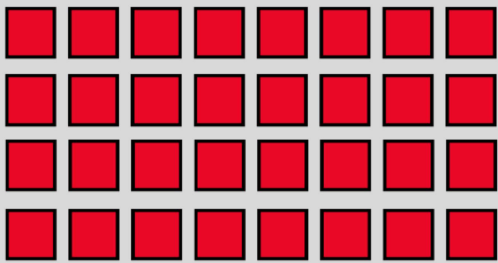
## LESSON 8

# RELATE MULTIPLICATION AND DIVISION – PART 1

### WATCH ME FIRST!



Pat has 32 square tiles. If she places 8 squares in each row, how many rows of squares will there be? Draw an array to solve the problem and fill in the blanks.



There are 4 rows of squares.

$$\underline{\quad} \times \underline{8} = \underline{32}$$

$$\underline{32} \div \underline{8} = \underline{\quad}$$

**What does the 8 represent in both equations?**

8 represents the number of \_\_\_\_\_ in each row.

**What does the 32 represent in both equations?**

32 represents the \_\_\_\_\_ of square tiles.

**What is the quotient? What does it represent?**

4 represents the number of \_\_\_\_\_.

### LET'S WORK TOGETHER!

1) Finish the array to show  $21 \div 7$ . Use the array to answer the questions.

Complete the Array



There are \_\_\_\_\_ rows of circles.

There are \_\_\_\_\_ circles in each row.

**Find the missing numbers in both equations.**

$$\underline{21} \div \underline{7} = \underline{\quad}$$

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

**What does the 21 represent in both equations?**

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**What number represents the number of groups?**

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**YOUR TURN!**

- 1) Kelly has 24 rocks in her collection. She placed them all on a table so that her classmates could see them. Kelly arranged 4 rocks in each row. How many rows were there? Create an array and use it to answer the questions.

Create an array

There are \_\_\_\_\_ rows of rocks.

$$\begin{array}{r} 24 \\ \hline \end{array} \div \begin{array}{r} \phantom{00} \\ \hline \end{array} = \begin{array}{r} \phantom{00} \\ \hline \end{array}$$

$$\begin{array}{r} \phantom{00} \\ \hline \end{array} \times \begin{array}{r} 4 \\ \hline \end{array} = \begin{array}{r} \phantom{00} \\ \hline \end{array}$$

What does the 4 represent?

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What does the 24 represent?

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What number represents the number of groups?

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- 2) Finish the array to show  $27 \div 9$ . Use the array to answer the questions.

Complete the Array



There are \_\_\_\_\_ rows of squares.

There are \_\_\_\_\_ squares in each row.

Find are the missing numbers.

$$\begin{array}{r} 27 \\ \hline \end{array} \div \begin{array}{r} 9 \\ \hline \end{array} = \begin{array}{r} \phantom{00} \\ \hline \end{array}$$

$$\begin{array}{r} \phantom{00} \\ \hline \end{array} \times \begin{array}{r} \phantom{00} \\ \hline \end{array} = \begin{array}{r} 27 \\ \hline \end{array}$$

What does the 27 represent in both equations?

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What number represents the number of groups?

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**YOUR TURN!**

3) Alicia makes 30 cookies and puts them into bags. If each bag can hold 6 cookies, how many bags does she need? Create an array and use to answer the questions.

Create an array

There are \_\_\_\_\_ rows of bags.

$$\begin{array}{r} 30 \\ \hline \end{array} \div \begin{array}{r} \phantom{00} \\ \hline \end{array} = \begin{array}{r} \phantom{00} \\ \hline \end{array}$$

$$\begin{array}{r} \phantom{00} \\ \hline \end{array} \times \begin{array}{r} 6 \\ \hline \end{array} = \begin{array}{r} \phantom{00} \\ \hline \end{array}$$

What does the 6 represent?

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What does the 30 represent?

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What number represents the number of groups?

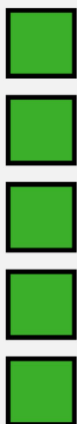
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4) Finish the array to show  $15 \div 5$ . Use the array to answer the questions.

Complete the Array



There are \_\_\_\_\_ columns of squares.

There are \_\_\_\_\_ squares in each column.

Find the missing numbers in both equations.

$$\begin{array}{r} 15 \\ \hline \end{array} \div \begin{array}{r} 5 \\ \hline \end{array} = \begin{array}{r} \phantom{00} \\ \hline \end{array}$$

$$\begin{array}{r} \phantom{00} \\ \hline \end{array} \times \begin{array}{r} 5 \\ \hline \end{array} = \begin{array}{r} \phantom{00} \\ \hline \end{array}$$

What does the 15 represent in both equations?

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What number represents how many in each group?

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**YOUR TURN!**

5) Ben planted 36 rose bushes. He planted the same number of bushes in each of 4 rows. How many bushes are in each row? Create an array and answer the questions.

Create an array

**What does the 4 represent?**

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**What does the 36 represent?**

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**What number represents how many in each group?**

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There are \_\_\_\_\_ rows of bushes.

$$\begin{array}{r} 36 \\ \hline \end{array} \div \begin{array}{r} \phantom{00} \\ \hline \end{array} = \begin{array}{r} \phantom{00} \\ \hline \end{array}$$

$$\begin{array}{r} \phantom{00} \\ \hline \end{array} \times \begin{array}{r} 9 \\ \hline \end{array} = \begin{array}{r} \phantom{00} \\ \hline \end{array}$$

6) Finish the array to show  $20 \div 4$ . Use the array to answer the questions.

Complete the Array



**Find the missing numbers in both equations.**

$$\begin{array}{r} 20 \\ \hline \end{array} \div \begin{array}{r} 4 \\ \hline \end{array} = \begin{array}{r} \phantom{00} \\ \hline \end{array}$$

$$\begin{array}{r} \phantom{00} \\ \hline \end{array} \times \begin{array}{r} 4 \\ \hline \end{array} = \begin{array}{r} \phantom{00} \\ \hline \end{array}$$

**What does the 20 represent in both equations?**

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**What number represents how many in each group?**

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There are \_\_\_\_\_ rows of squares.

There are \_\_\_\_\_ squares in each row.