

UNDERSTANDING

MULTIPLICATION AND DIVISION

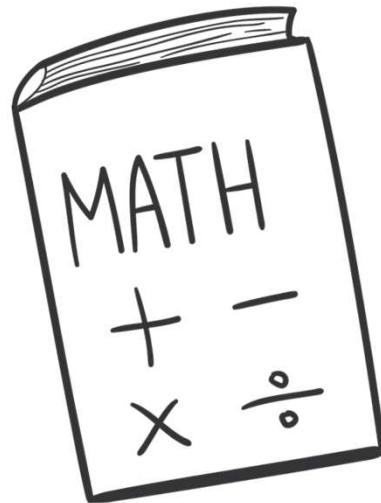
SOLVE IT

LESSON 4

TODAY'S OBJECTIVE

Today we will solve a variety of multiplication word problems by drawing equal groups and creating arrays.

TAKE OUT YOUR **MATH JOURNALS**





WATCH ME FIRST



Today we are going to solve word problems using 4 steps.

STEP 1:

Think about the word problem.

STEP 2:

Create an equation based on the problem.

STEP 3:

Solve the equation.

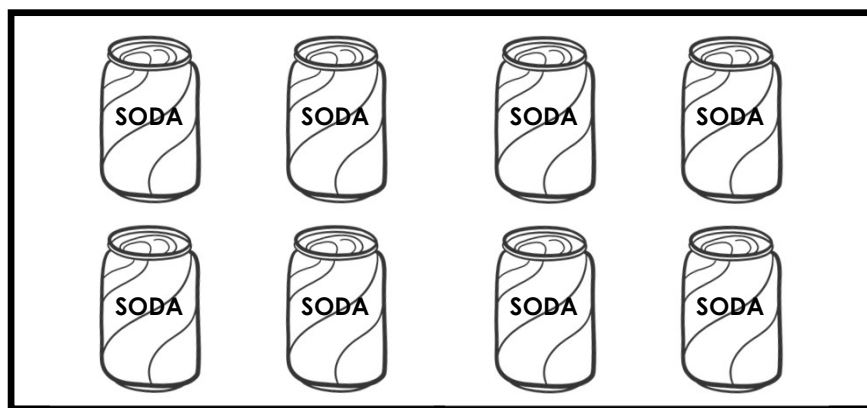
STEP 4:

Answer the word problem.



1st: Think about the word problem

Sarah purchased five packs of soda. The picture below shows one pack. How many cans of soda did Sarah buy in all? Draw a picture to show your work. Write a matching equation.



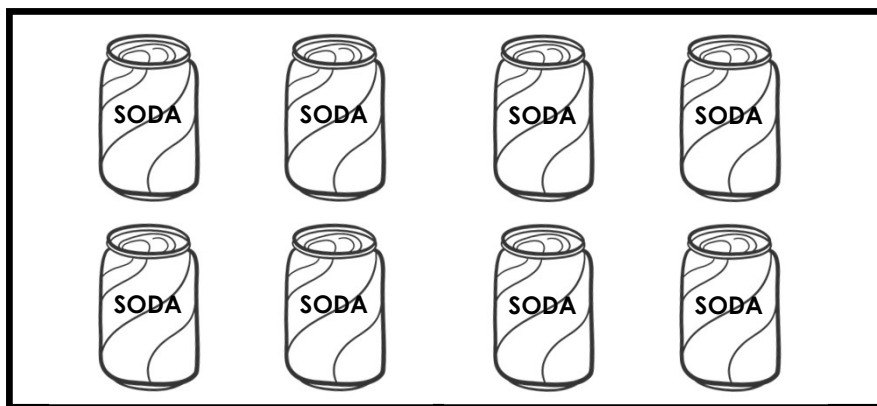
What do the numbers represent?

What is this problem asking me to find?



1st: Think about the word problem

Sarah purchased five packs of soda. The picture below shows one pack. How many cans of soda did Sarah buy in all? Draw a picture to show your work. Write a matching equation.



5

groups of
soda

8

of sodas
in a group

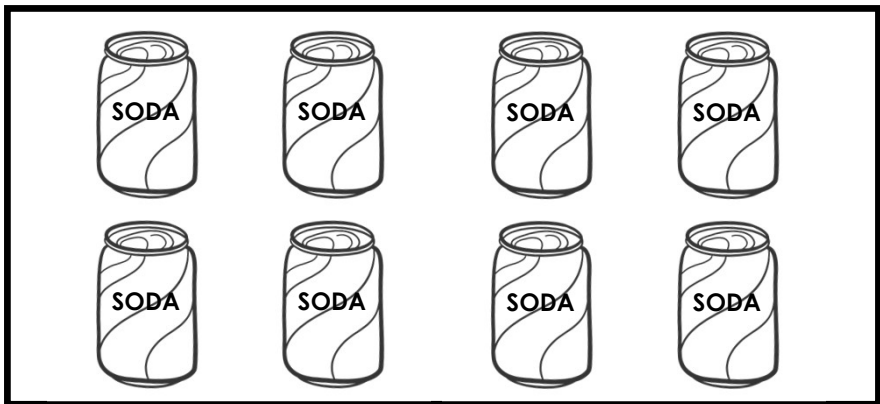


First, I need to figure out what the numbers represent.



1st: Think about the word problem

Sarah purchased five packs of soda. The picture below shows one pack. How many cans of soda did Sarah buy in all? Draw a picture to show your work. Write a matching equation.



5

groups of
soda

8

of sodas
in a group

?

total # of sodas
Sarah purchased

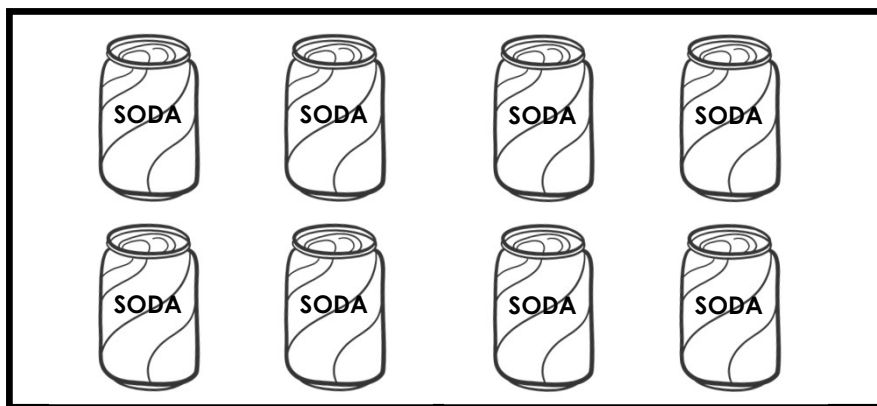


Now, I need to think about what I'm trying to find.



2nd : Create an equation

Sarah purchased five packs of soda. The picture below shows one pack. How many cans of soda did Sarah buy in all? Draw a picture to show your work. Write a matching equation.



$$5 \times 8 = ?$$

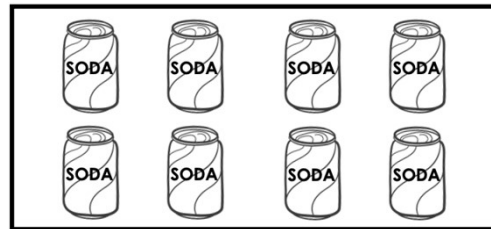
groups of soda # of sodas in a group total # of sodas Sarah purchased



What equation will I use to solve it?



3rd: Solve the equation: 5×8



There are 5 groups of 8 sodas, which is a total of 40 sodas.

$$5 \times 8 = 40 \text{ or } 8 + 8 + 8 + 8 + 8 = 40$$



I'll solve it by making equal groups.



4th: Answer the Word Problem

Sarah purchased five packs of soda. The picture below shows one pack. How many cans of soda did Sarah buy in all? Draw a picture to show your work. Write a matching equation.

$$\begin{array}{ccccccc} 5 & \times & 8 & = & 40 \\ \text{groups of} & & \text{\# of sodas} & & \text{total \# of sodas} \\ \text{soda} & & \text{in a group} & & \text{Sarah purchased} \end{array}$$

Sarah purchased 40 cans of soda.



Finally, I'll answer the word problem.



LET'S WORK TOGETHER



Problem #1

LET'S WORK TOGETHER

1st: Think about the word problem

Hector is packing moving boxes. 4 plates fit into one box. If he packed 8 boxes, how many plates did he pack? Draw an array to show your work.



What do the numbers represent?

What is this problem asking me to find?

1st: Think about the word problem

Hector is packing moving boxes. **4** plates fit into one box. If he packed **8** boxes, how many plates did he pack? Draw an array to show your work.

8

groups of
plates

4

of plates
in each group



What does each number in the problem represent?

1st: Think about the word problem

Hector is packing moving boxes. 4 plates fit into one box. If he packed 8 boxes, how many plates did he pack? Draw an array to show your work.

8

groups of
plates

4

of plates
in each group

?

total # of
plates Hector
packed



What are we trying to find?

2nd: Create an equation

Hector is packing moving boxes. 4 plates fit into one box. If he packed 8 boxes, how many plates did he pack? Draw an array to show your work.

$$8 \times 4 = ?$$

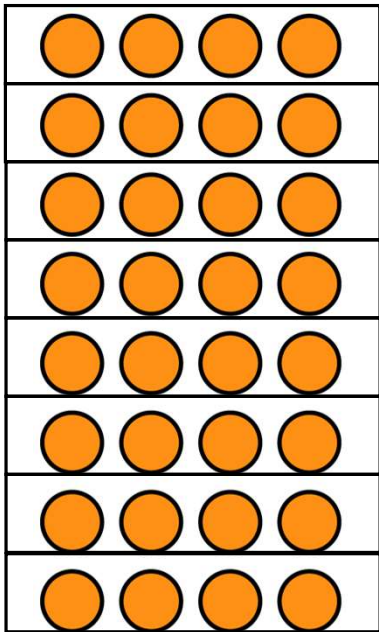
groups of plates # of plates in each group total # of plates Hector packed



What equation will we use to solve?

 **Problem #1**
LET'S WORK TOGETHER

3rd: Solve the equation: 8×4



There are 8 groups of 4 plates, which is a total of 32 plates.

$$8 \times 4 = 32 \text{ or } 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 = 32$$



Let's make an array to solve this one.

4th: Answer the Word Problem

Hector is packing moving boxes. 4 plates fit into one box. If he packed 8 boxes, how many plates did he pack? Draw an array to show your work.

$$\begin{array}{ccccccc} 8 & \times & 4 & = & 32 \\ \text{groups of} & & \text{\# of plates} & & \text{total \# of plates} \\ \text{plates} & & \text{in a group} & & \text{Hector packed} \end{array}$$

Hector packed 32 plates.



How should we answer this word problem?

CHECK - IN

- What did you notice?
- Can you make a connection to anything else you already know? How?
- Do you have any questions?

IT'S YOUR TURN



Now It's **“YOUR TURN”** to Solve



Don't forget to explain your thinking!



Problem #1

YOUR TURN

Brandi went apple picking at Sunrise Farm. She had 4 bags with 3 apples in each bag. How many apples did she pick?

Draw a picture and write an equation to show your work.

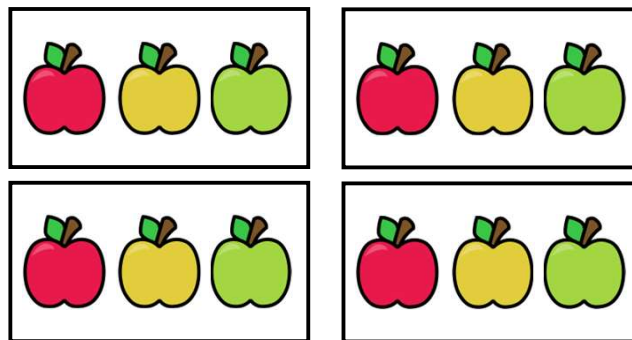


Problem #1

YOUR TURN

Brandi went apple picking at Sunrise Farm. She had 4 bags with 3 apples in each bag. How many apples did she pick?

Draw a picture and write an equation to show your work.



$$4 \times 3 = 12$$

of groups

of apples
in a group

total # of
apples

Brandi picked 12 apples.



Problem #2

YOUR TURN

Kina sorted crayons into boxes. There are 5 boxes with 4 crayons in each box. How many crayons are there?

Draw a picture and write an equation to show your work.

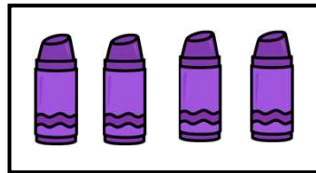
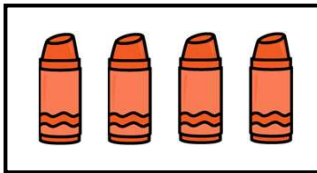
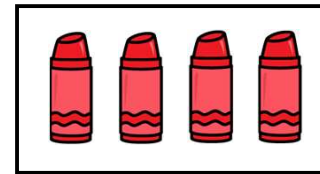
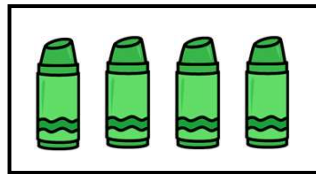
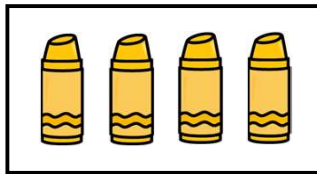


Problem #2

YOUR TURN

Kina sorted crayons into boxes. There are 5 boxes with 4 crayons in each box. How many crayons are there?

Draw a picture and write an equation to show your work.



$$5 \times 4 = 20$$

of groups

of crayons
in a group

total # of
crayons

There are 20 crayons.



Problem #3

YOUR TURN

**Mrs. Coleman ordered 8 packs of mini-donuts for her class.
How many donuts did she buy in total?**

Draw a picture and write an equation to show your work.



= 1 pack of mini - donuts

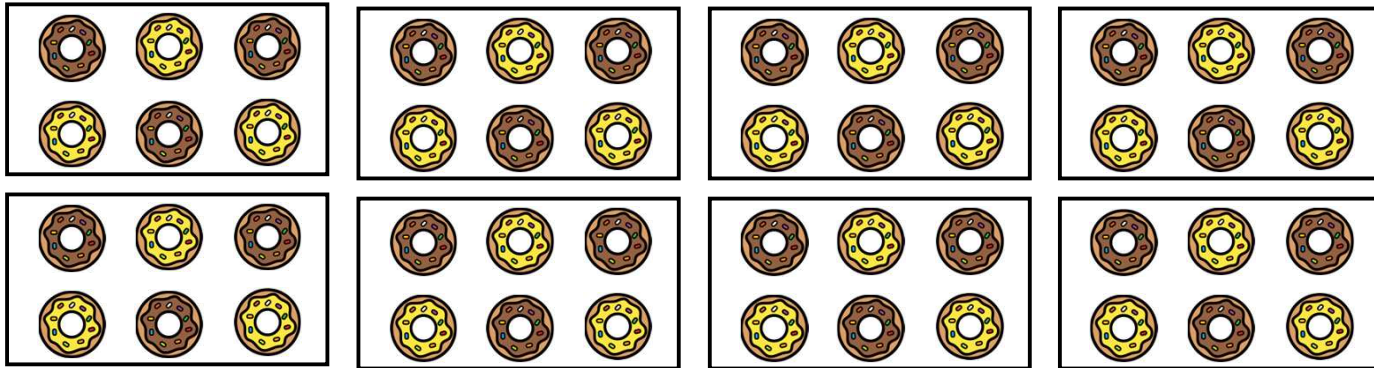


Problem #3

YOUR TURN

Mrs. Coleman ordered 8 packs of mini-donuts for her class.
How many donuts did she buy in total?

Draw a picture and write an equation to show your work.



$$8 \times 6 = 48$$

of groups

of donuts
in a group

total # of
donuts

Mrs. Coleman bought 48 donuts.



Problem #4

YOUR TURN

**For the math competition, Ms. Jones split her class into 3 teams with 5 players on each team. How many players are there in all?
Draw an array to show your work.**

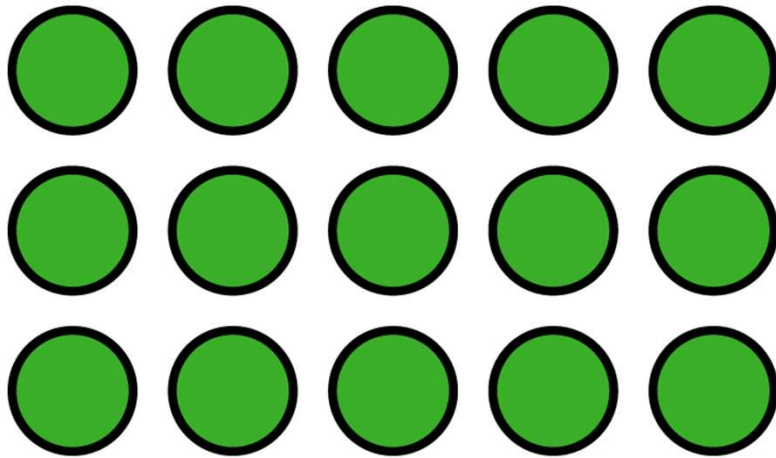


Problem #4

YOUR TURN

For the math competition, Ms. Jones split her class into 3 teams with 5 players on each team. How many players are there in all?

Draw an array to show your work.



$$\begin{array}{ccccccc} 3 & \times & 5 & = & 15 \\ \text{\# of groups} & & \text{\# of players} & & \text{total \# of} \\ & & \text{in a group} & & \text{players} \end{array}$$

There are 15 players in all.



Problem #5

YOUR TURN

**Ben has four bookbags. There are six pencils in each bookbag.
How many pencils does Ben have altogether?
Draw an array to show your work.**

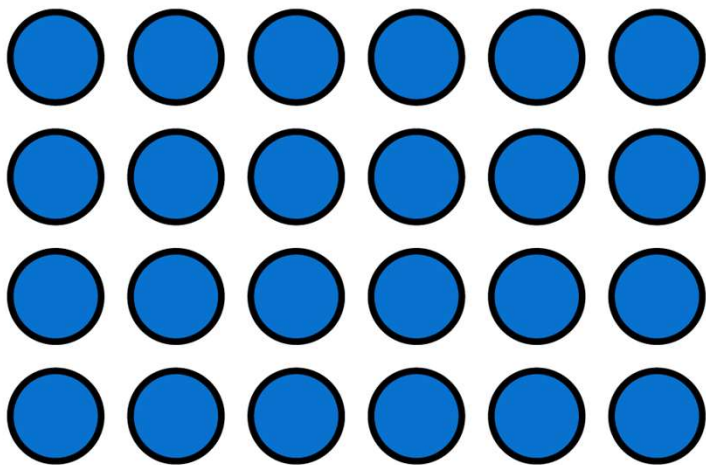


Problem #5

YOUR TURN

**Ben has four bookbags. There are six pencils in each bookbag.
How many pencils does Ben have altogether?**

Draw an array to show your work.



$$4 \times 6 = 24$$

of groups

of pencils
in a group

total # of pencils

Ben has 24 pencils.



Problem #6

YOUR TURN

**In a garden, there are seven rows with 7 roses in each row.
How many roses are in the garden?**

Draw an array to show your work.

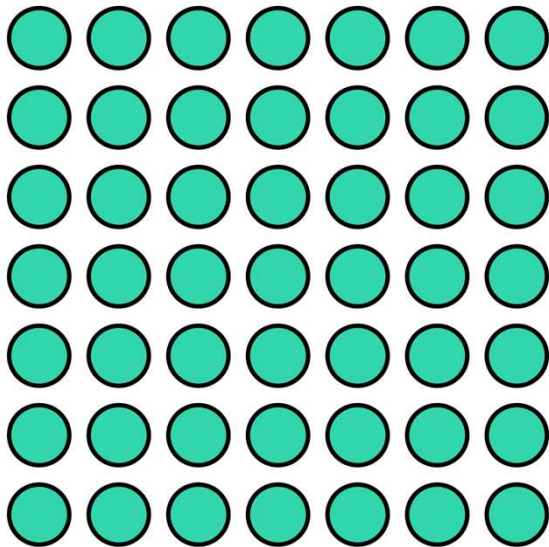


Problem #6

YOUR TURN

In a garden, there are seven rows with 7 roses in each row.
How many roses are in the garden?

Draw an array to show your work.

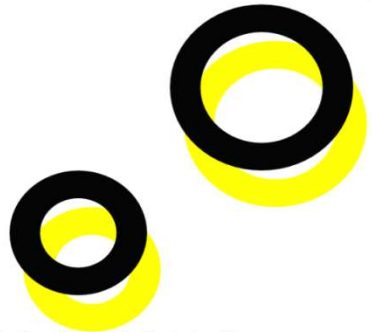
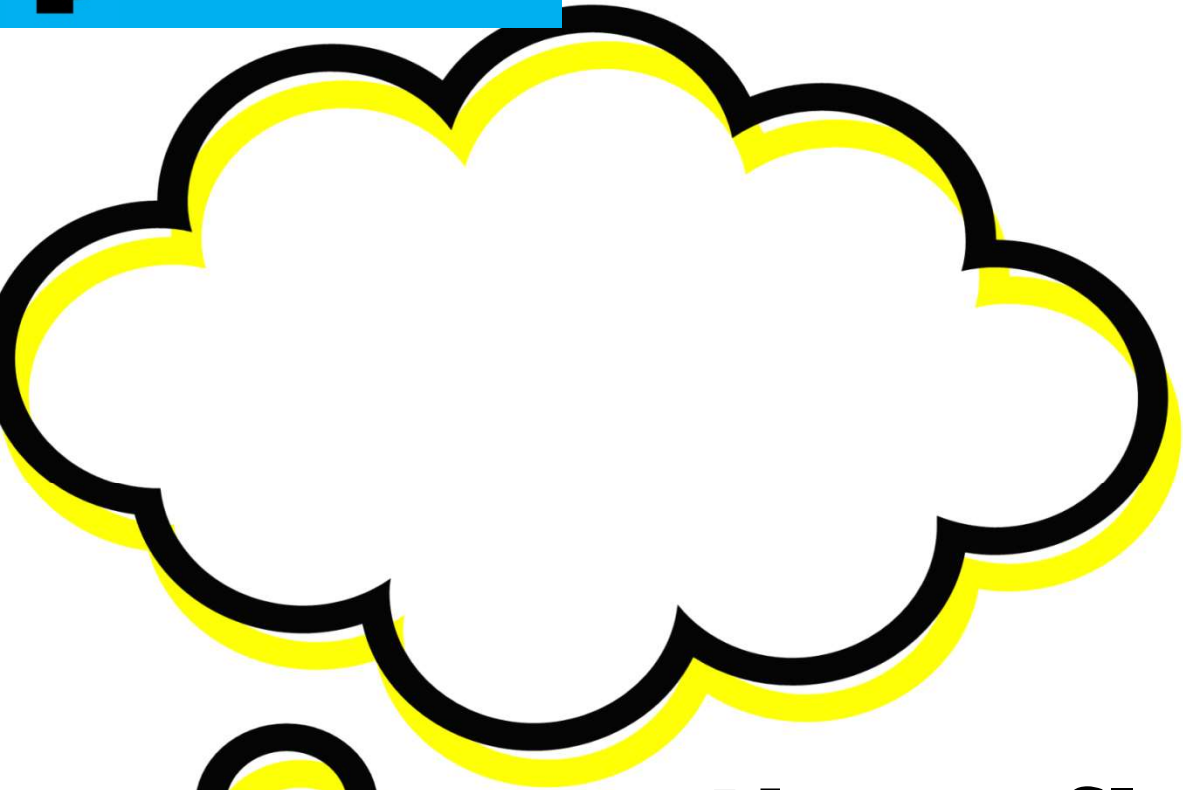


$$7 \times 7 = 49$$

of groups # of roses in a group total # of roses

The garden has 49 roses.

 **Let's Reflect**



It's reflection time!