Math Problem Solving Showcase

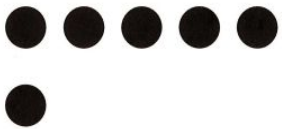
October 26, 2023

Kindergarten

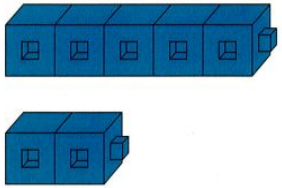
Name

20

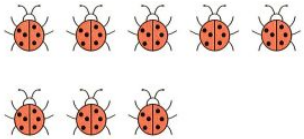
Circle a group of five in all the pictures.
Then count and circle how many in all.



5 6 7



7 8 9



7 8 9

8 9 10

Kindergarten

Count the animals. Circle the number that tells how many.

1	2	3	4	5

1	2	3	4	5

First Grade

Read

9 people are on a bus.

3 people get on the bus.

How many people are on the bus now?

Draw

Write

There are ☐ people on the bus now.

Read

9 people are on a bus.

3 people get off the bus.

How many people are on the bus now?

Draw

Write

There are ☐ people on the bus now.

First Grade

1. **Read**

8 people are on a bus.

4 people get on the bus.

How many people are on the bus now?

Draw

Write

There are ☐ people on the bus now.

2. **Read**

8 people are on a bus.

4 people get off the bus.

How many people are on the bus now?

Draw

Write

There are ☐ people on the bus now.

First Grade

1. **Read**

3 bugs are on a leaf.

4 bugs fly on to the leaf.

How many bugs are on the leaf now?

Draw

Write

There are ☐ bugs on the leaf now.

2. **Read**

7 bugs are on a leaf.

4 bugs fly off the leaf.

How many bugs are on the leaf now?

Draw

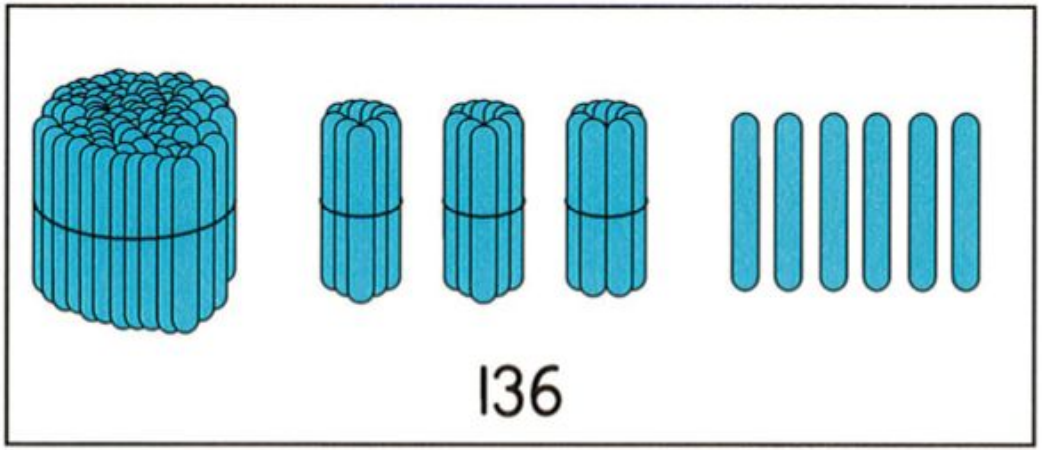
Write

There are ☐ bugs on the leaf now.

Second Grade

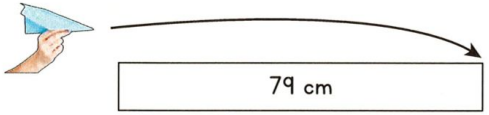
1. Count from 136 to 400.

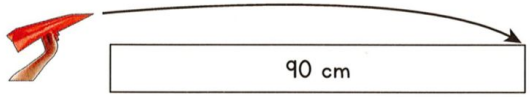
Draw ones, tens, and hundreds.

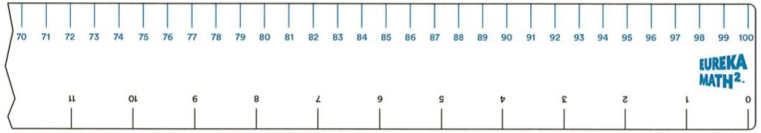


Second Grade

1. How much farther does the red plane go than the blue plane?







Write an equation. _____

The red plane goes _____ farther than the blue plane.

Two Ways

Third Grade

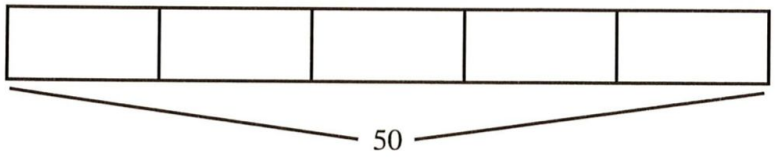
5. The pet store has 50 fish for sale.

   The fish are divided equally into 5 tanks.

   How many fish are in each tank?

   a. Complete the tape diagram.

   b. Then complete the equations and statement.



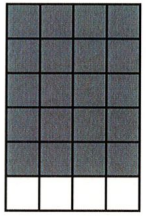
$5 \times ____ = 50$

$50 \div 5 = ____$

There are _____ fish in each tank.

Third Grade

Use each array to complete the equations.

1. 

$(5 \times 4) =$ _____

$(1 \times 4) =$ _____

6 fours = 5 fours + 1 four

$6 \times 4 = (5 \times 4) + (1 \times 4)$

$6 \times 4 = 20 +$ _____

$6 \times 4 =$ _____

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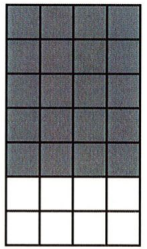
2. 

$(5 \times 4) =$ _____

$(2 \times 4) =$ _____

7 fours = 5 fours + 2 fours

$7 \times 4 = (5 \times 4) + (2 \times 4)$

$7 \times 4 = 20 +$ _____

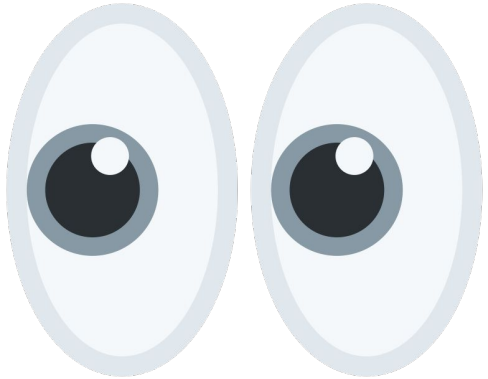
$7 \times 4 =$ _____

Fourth Grade

Use the Read–Draw–Write process to solve the problem.

An ice cream company sold their product and earned money.

- They earned $7,228 in January.
- They earned $2,999 more in February than in January.
- They earned the same amount in March as they did in February.



How much money did the ice cream company earn altogether? Is your answer reasonable? Explain.

Multiply:

449 x 839 =

Sixth Grade

7. Leo needs plaster to create masks for a costume party. To make the plaster, he mixes 2 cups of flour with 7 cups of water.

   a. How many cups of water does Leo use for every 1 cup of flour that he uses?

   b. How many cups of flour does Leo use for every 1 cup of water that he uses?

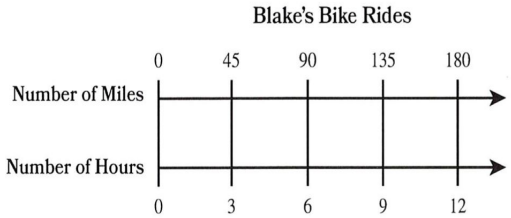
   c. If Leo uses 9 cups of flour, how many cups of water should he use?

Sixth Grade

Rates

The Unit Rate

1. The double number line represents the ratio relationship between the number of miles and the number of hours that Blake rides his bike.



a. What is Blake's speed in miles per hour? Interpret its meaning.

b. At this speed, how many hours does it take Blake to ride 30 miles?

c. At this speed, how many miles does Blake ride if he rides his bike for 5 hours?

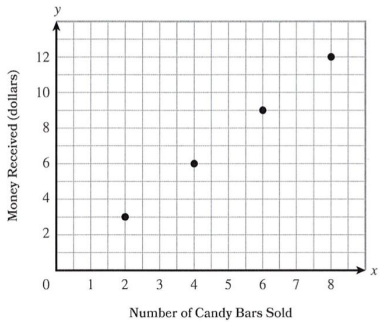
2. The ratio table represents the relationship between the number of miles and the number of hours that Kelly rides her bike. Who rides faster, Kelly or Blake? Explain.

Kelly's Bike Rides

Number of Miles	Number of Hours
64	4
128	8
192	12

Seventh Grade

5. The graph shows the number of candy bars sold and the money received.



a. Does the graph appear to represent a proportional relationship between the amount of money received and the number of candy bars sold? Explain how you know.

b. Create a table of values based on the graph.

Number of Candy Bars Sold, x	Money Received, y (dollars)

c. Use the values from the table to justify that the relationship between the amount of money received and the number of candy bars sold is proportional.

d. What does the point (0, 0) mean in this context?

Eighth Grade

	Approximate Measurement (meters)					
	Standard Form	Unit Form	Fraction	Number Times a Unit Fraction (expanded form)	Number Times a Unit Fraction (exponential form)	
Grain of Rice (length)	0.006					
Spider Silk (diameter)	0.000 004					
Water Molecule (diameter)	0.000 000 0003					
White Blood Cell (diameter)						2×10^{-6}