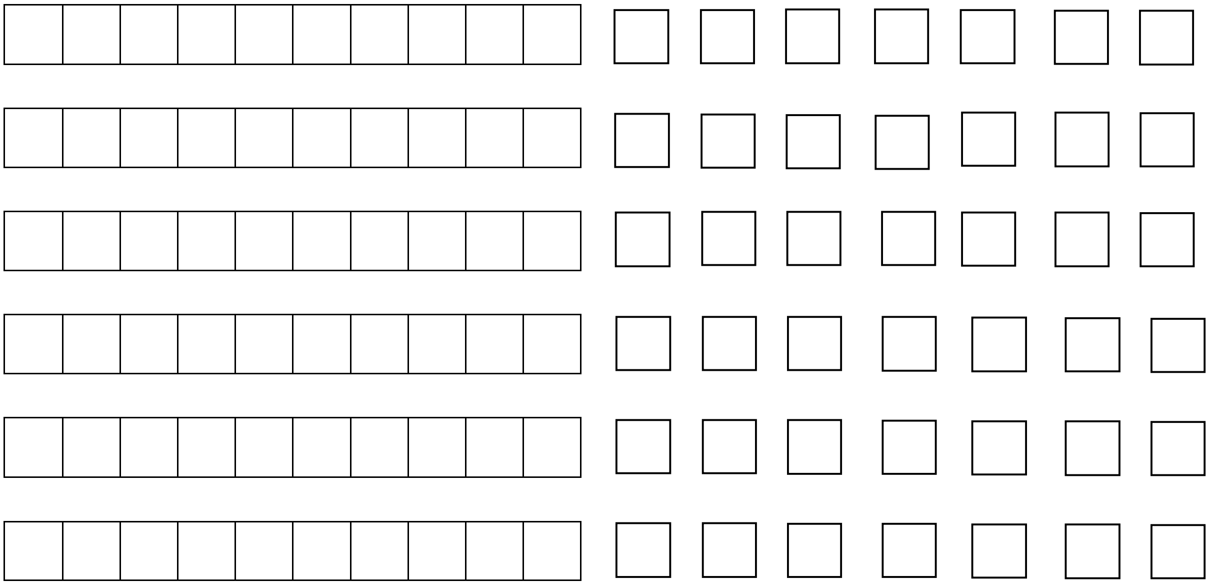
E1

Look at these base ten blocks.



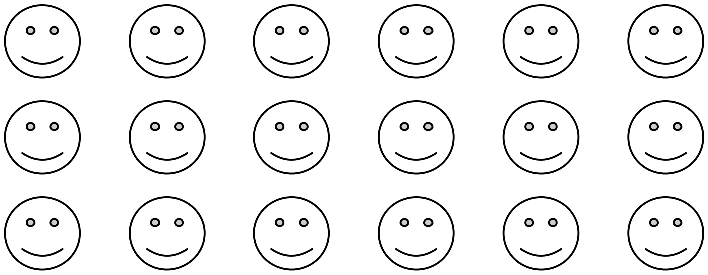
Write a multiplication equation to represent the blocks.

Explain your equation.

E2

Write an equation to match this picture.

Explain your thinking.



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E3

There were five cars in the parking lot. Each car had four wheels.

A. Sam found the total number of wheels by counting each wheel.

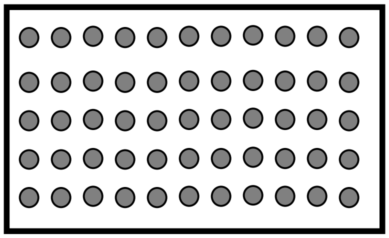
B. Beth found the total number of wheels by multiplying 4 x 5.

C. Jim found the total number of wheels by counting by 4s five times.

Explain why all three ways work for finding out how many wheels there are on five cars.

E4

Look at this watercolor palette.



Ben and Ryan wanted to figure out how many different colors there are on this palette.

Ben used this number sentence:

11 + 11 + 11 + 11 + 11 = 55

Ryan used this number sentence:

11 X 5 = 55

Explain why both these methods will work.

E5

There are 6 horses. Each horse has four legs. How many legs in all?

The table below shows the different number sentences students used to try to solve this problem.

Which of the students' number sentences below match the story problem above?

Explain why each number sentence can or cannot be used to solve the problem.

	yes	no	Explain why or why not?
A. 4 + 4 + 4 + 4 + 4 + 4			
B. 6 + 4			
C. 6 + 6 + 6 + 6 + 6 + 6			
D. 6 + 6 + 6+ 6			
E. 6 x 4			

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E6

Look at this equation.

$$10 \times 2 = 20$$

Circle the story problem that can be solved using this equation.

A. Jill has 10 stickers and Bill gives her 2 more. How many does she have all together?

B. Jill has 10 stickers and Bill has 2 stickers. How many more stickers does Jill have?

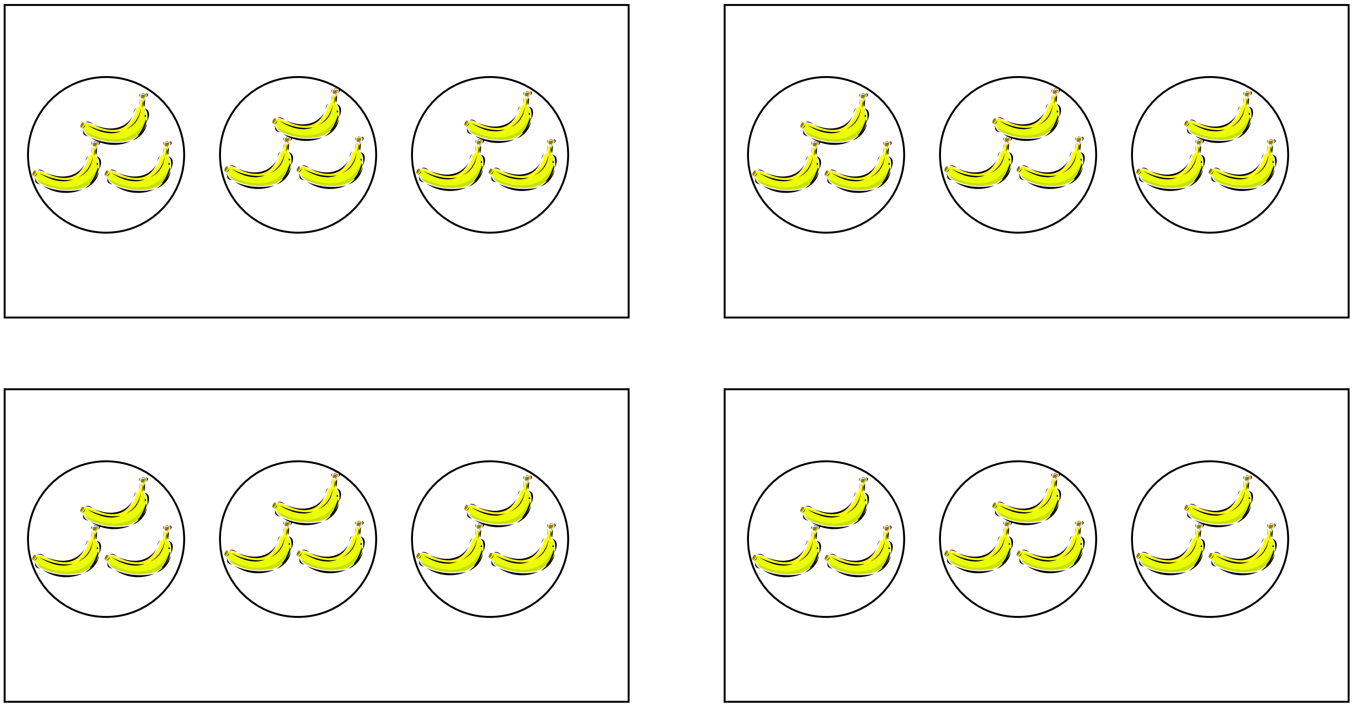
C. Jill has 10 stickers and shares all her stickers with 2 friends. How many stickers do Jill and her friends get?

D. Jill has 10 sheets of stickers with 2 stickers on each sheet. How many does she have all together?

Explain your choice.

E8

Look at this picture.



Write an equation that can be used to figure out the total number of bananas in the picture.

Label all the numbers in your equation.

E9

Look at this equation.

$$7 \times 3 = 21$$

Draw a model that represents this equation.

E10

Look at this equation.

$$6 \times 5 = 30$$

Write a story problem that goes with this equation.

E11

Look at this equation.

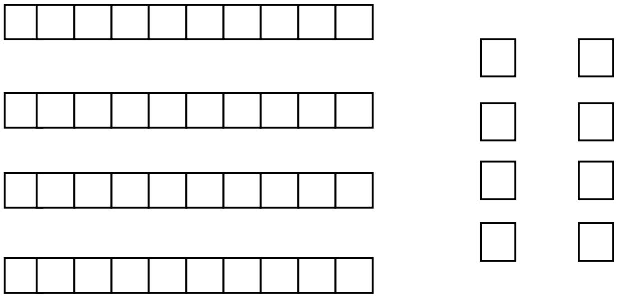
$$9 \times 3 = 27$$

Choose the story problem that goes with this equation.

A. Sara bought a package with 3 barrettes in it. She already had 9 barrettes. How many barrettes does Sara have all together?
B. Sara bought 3 packages of barrettes. There were 9 barrettes in each package. How many barrettes all together?
C. Sara wants to give 3 barrettes to each of her friends. She has 9 barrettes to give away. How many friends does she give barrettes to?
D. Sara needs 9 barrettes. Barrettes are sold in packages of 3. How many packages should she buy?

E12

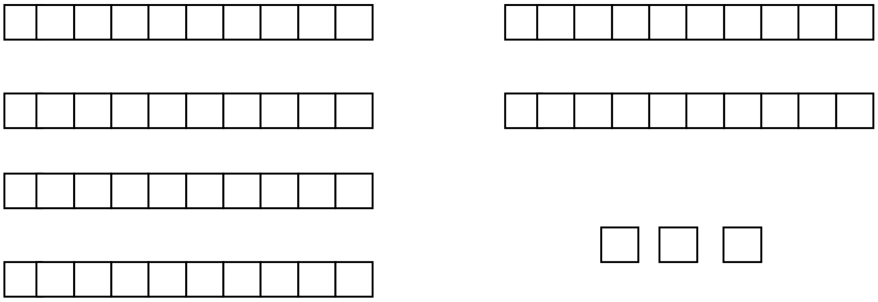
Look at these base 10 blocks.



Write an equation that represents what happens when the base 10 blocks are shared between two people.

E13

Look at these base 10 blocks.



Write a division equation that represents what happens when the base 10 blocks are shared between three people.

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E14

Mark has 24 carrots to share equally between his 4 rabbits.

Write an equation to show how many carrots each rabbit will get.

E16

Tom put 8 flowers in each vase. He had 32 flowers altogether. How many vases does he have?

Choose the number sentence that can be used to find out how many flowers are in each vase.

a) 8 ÷ 32

b) 32 x 8

c) 8 + 32

d) 32 ÷ 8

Explain your choice.

E17

The Fruity Frozen Yogurt Company made 156 frozen yogurt pops. They put them in packages of 3 to hand out as samples at the grocery store.

Write an equation to show how many people will receive a package of frozen yogurt pops.

E18

Look at this equation.

$$72 \div 8 = 9$$

Write a story problem that could be solved with this equation.

E20

Look at this equation.

$$48 \div 6 = 8$$

Choose the story problem that could be solved with this equation.

A. Jim has 6 baseball cards on each page. He has 48 baseball cards altogether. How many pages of baseball cards does Jim have?
B. Jim has 6 baseball cards and he wants 48 baseball cards altogether. How many more baseball cards does he need?
C. Jim has 48 baseball cards in each box. Jim has 6 boxes. How many baseball cards does Jim have altogether?
D. Jim has 48 baseball cards. He keeps 8 cards and gives the rest away. How many cards does he give away?

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E21

Tami put 32 cupcakes on 4 trays. How many cupcakes are on each tray?

Circle the equations below that could be used to solve this story problem.

A. $32 \div 4 = 8$

B. $4\overline{)32}$ with 8 above: $\begin{array}{r} 8 \\ 4\overline{)32} \end{array}$

C. $4 \div 32 = 8$

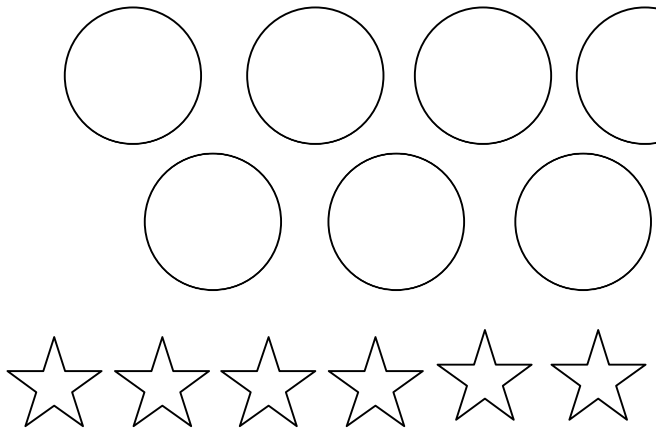
D. $\frac{32}{4} = 8$

E. $\begin{array}{r} 8 \\ 32\overline{)4} \end{array}$

F. $\frac{4}{32} = 8$

E23

Kim drew this picture to find out the answer to 7 x 6.



Explain why Kim’s drawing won’t help her solve 7 x 6.

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E30

A piece of elastic stretches to 5 times its length. When fully stretched it is 65 inches long.

How long is the original length of the elastic?

Write an equation to represent the problem situation with $\underline{n}$ standing for original length of the elastic.

Equation: ______________________

Solve the problem.   Show your work.

E31

A piece of elastic that is 19 inches long can be stretched to 194 inches.

How many times its original length has it been stretched?

Write an equation to represent the problem situation with ***n*** standing for the number of times the elastic has been stretched.

Equation: ______________________

Solve the problem. Show your work.

E32

A piece of elastic stretches to 10 times its length. If the elastic is 12 inches long, how long will it be when it is fully stretched?

Write an equation to represent the problem situation with $\underline{n}$ standing for how long the elastic will be when it is fully stretched.

Equation: ______________________

Solve the problem. Show your work.

E33

The price of a loaf of bread in 1950 was $0.20 per loaf. The price of a loaf of bread today is $2.60.

How many times more does a loaf of bread today cost than in 1950?

Write an equation to represent the problem situation with *n* standing for the number of times more a loaf of bread costs today than it did in 1950.

Equation: ________________________

Solve the problem. Show your work.

.

E34

The price of gas in 1960 was \$0.19 per gallon. Today the price is 14 times more than in 1960.

What is the price of gas per gallon today?

Write an equation to represent the problem situation with *__n__* standing for the price of gas per gallon today.

Equation: ______________________

Solve the problem. Show your work.

.

E36

The fourth grade class decided to make an album of their favorite pictures taken during the school year.

Some of the pictures were large and some were small.

> They put the small pictures 3 to a page filling 19 pages.
> They put 2 large pictures to a page filling 23 pages.

How many pictures are in the album altogether?
Solve the problem.   Show your work.

Write an equation to represent the problem situation with *n* standing for the total number of pictures in the album altogether.

Equation: ______________________

E37

Max and Thomas each delivered vegetables to a store.

> Max delivered 8 bags of vegetables with 40 pounds in each bag.
>
> Thomas delivered 9 bags of vegetables with 35 pounds in each bag.

How many pounds of vegetables were delivered altogether? Solve the problem. Show your work.

Write an equation to represent the problem situation with *n* standing for the number of pounds of vegetables delivered altogether.

Equation: ______________________

E38

Solve the following::

A) 3 x (6 + 5 x 3 + 4) =________________

B) 3 x (6 + 5) x (3 + 4) = __________________

C) 3 x (5 + 5 x (3 + 4)) =__________________

Explain how it is possible that all three problems have the same numbers but different solutions.

E39

Is the following equation correct or incorrect?

$$8 + 5 \times (4 + 2) = (8 + 5) \times 4 + 2$$

Explain why or why not.

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E40

Roberto evaluated the following expression and got the answer 42.

$5 \text{ x } (2 + 8) + (4 \text{ x } 3) + 12$

Is Roberto correct? Explain why or why not.

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E41

The parenthesis challenge

3 + 5 x 6 + 8

Richard evaluated this expression and got the CORRECT answer of 41.

By placing one set of parenthesis in this expression show how you can get a higher number than 41.

3 + 5 x 6 + 8

Explain why.

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