4.NBT.6 Division: Using Models

I can find use models to solve 2by1 digit division problems.

LINGO

divisor

The digit that divides the dividend

$12 \div \boxed{3} = 4$

quotient

The answer when dividing

$12 \div 3 = \boxed{4}$

dividend

The quantity divided

$\boxed{12} \div 3 = 4$

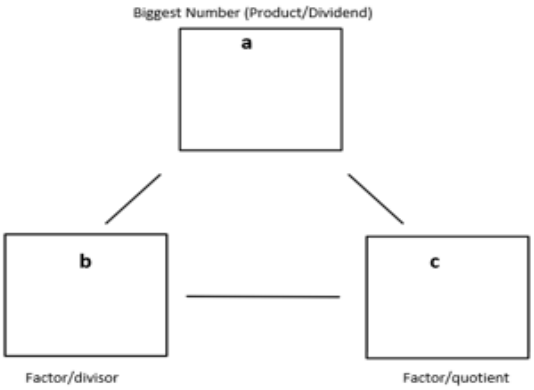
remainder

The amount left over, after a whole number has been divided equally

$12 \div 5 = 2\ r2$

MATH MOUNTAINS

- Multiplication and Division are opposite operations. You can use one operation to help you check the answer of another!
- This relationship is true no matter how big the numbers are!
- Let's try it:



Think of three numbers that you can use, to write 4 equations. Your equations need to use the same three numbers, when multiplying or dividing.

-You can write 8 equations using these three numbers.
-You can put the product/quotient at the beginning or the end of the equation.

$a = b \times c$ *or* $b \times c = a$

$a = c \times b$ *or* $c \times b = a$

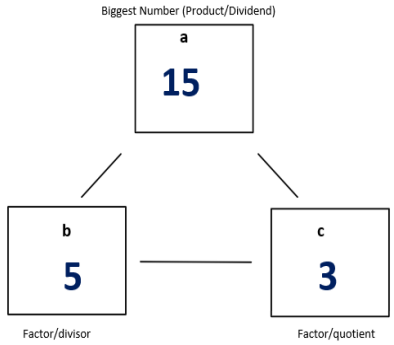
$b = a \div c$ *or* $a \div c = b$

$c = a \div b$ *or* $a \div b = c$

PRACTICE

Let's use these three numbers:

15, 5 & 3



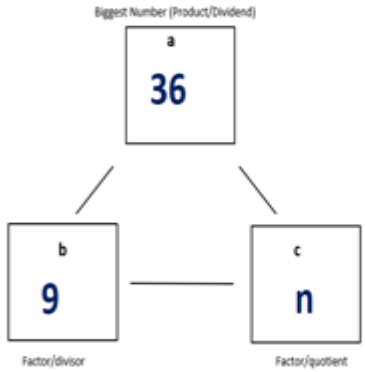
You can write equations like this:

5 x 3 = 15
3 x 5 = 15
15 ÷ 5 = 3
15 ÷ 3 =5

OR

15 = 5 x 3
15 = 3 x 5
3 = 15 ÷ 5
5 = 15 ÷ 3

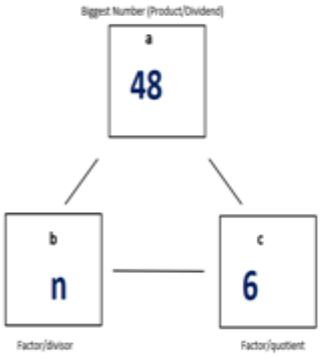
Use the two numbers and the "unknown" to write equations.



n = 4

n = 36 ÷ 9 ***or*** 36 ÷ 9 = n

9 x n = 36 ***or*** n x 9 = 36



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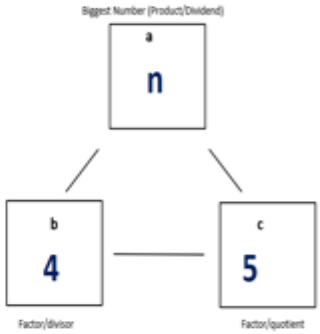

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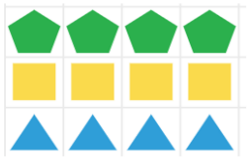
ARRAYS TO DIVIDE

What division calculation does this array describe?



___ x ___ = ___

___ x ___ = ___

___ ÷ ___ = ___

___ ÷ ___ = ___

What division calculation does this array describe?

___ x ___ = ___

___ x ___ = ___

___ ÷ ___ = ___

___ ÷ ___ = ___

What division calculation does this array describe?

___ x ___ = ___

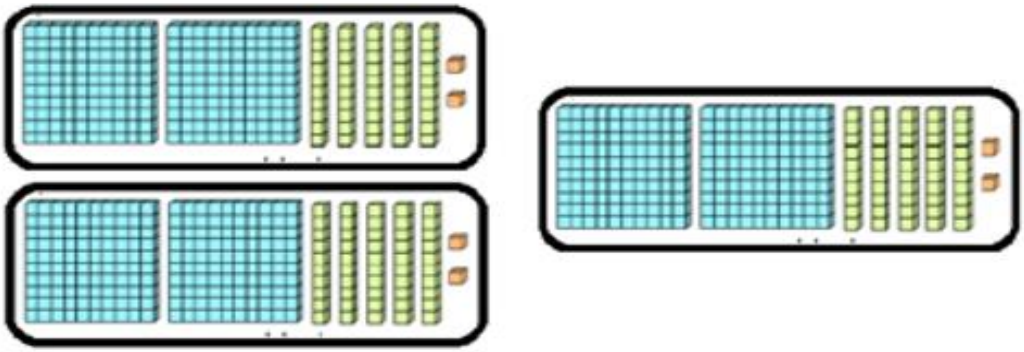
___ x ___ = ___

___ ÷ ___ = ___

___ ÷ ___ = ___

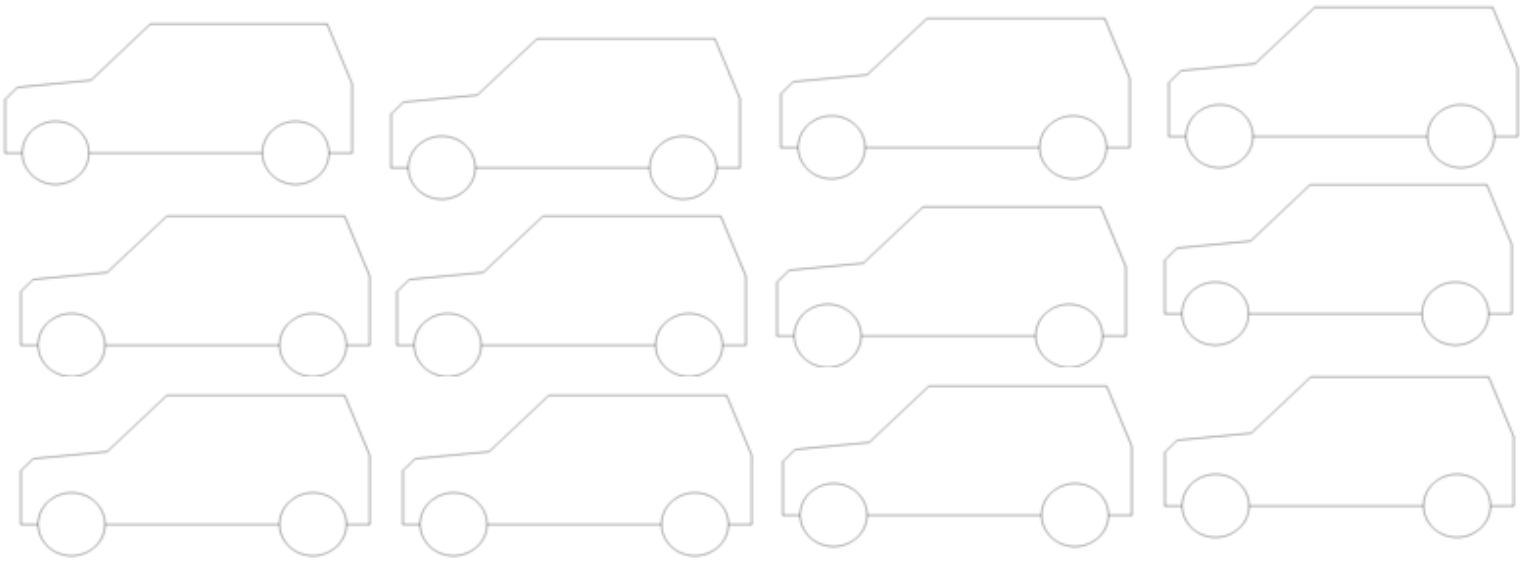
MODELS TO DIVIDE

Write the division equation that this model represents.



_____ ÷ _____ = _____

Ms. Ellingson wants to take her class of 28 students on a field trip. Each car can fit 4 students. How many cars will she need? Will all the cars be full?



_____ ÷ _____ = _____