

Poole Elementary 4th Grade Math Homework Helper

Unit 1- MCC4.OA.1

MCC.4.OA.1 Interpret a multiplication equation as a comparison, e.g., interpret $35 = 5 \times 7$ as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.

In other words... I understand that when a problem has “n times as many” it means I need to multiply.

What is 3 times as many as 4? ($3 \times 4 = 12$) 30 is 6 times as many as 5 ($6 \times 5 = 30$)

I also know... how to tell which number is being multiplied and which number tells how many times it should be multiplied.

How much is 9 times as many as 7? For this question, 7 is the number being multiplied and 9 is how many times 7 will be multiplied. ($9 \times 7 = 63$)

For example: Steve plays Minecraft® for 6 hours each week. Sarah plays 3 times as much as Steve. How many hours does Sarah play Minecraft® per week? To answer the problem I will multiply 6 (the hours Steve plays per week) 3 times to get the number of hours Sarah plays each week. I re-write the problem: $3 \times 6 = 18$. Sarah plays Minecraft® 18 hours per week.

For example: Shawn is 4 years old. His dad is 7 times older than he is. How old is Shawn's dad? To answer this problem I will multiply 4 (how old Shawn is) 7 times to get the age of his dad. I re-write the problem: $7 \times 4 = 28$. Shawn's dad is 28 years old.

Some new math words I am using with this standard:

Array – an arrangement (or picture) of equal groups in rows and columns

Equation – (uses the equal sign “=”) a number sentence that uses an equal sign to show that two amounts (quantities) are equal

$$3 \times 8 = 24$$

$$3 \times 8 = 12 \times 2$$

$$(6 \times 2) \times 8 = 6 \times (2 \times 8)$$

Factor - the number(s) multiplied in a multiplication problem. There are two factors (8 and 6) in this multiplication sentence $8 \times 6 = 48$.

Multiplication – (multiply uses the symbol “x” between two numbers) a math operation that combines equal groups. The symbol “x” means “groups of”

Product – the answer to a multiplication problem

Help your child by having her/him solve “n times as many” and “n times as much” problems at home. For example: This recipe uses 2 cups of oatmeal. We need 4 times as much since we are making 4 batches of oatmeal raisin cookies. How many cups of oatmeal do we need?
The problem is $4 \times 2 = 8$. We need 8 cups of oatmeal.

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Unit 1- MCC4.OA.2

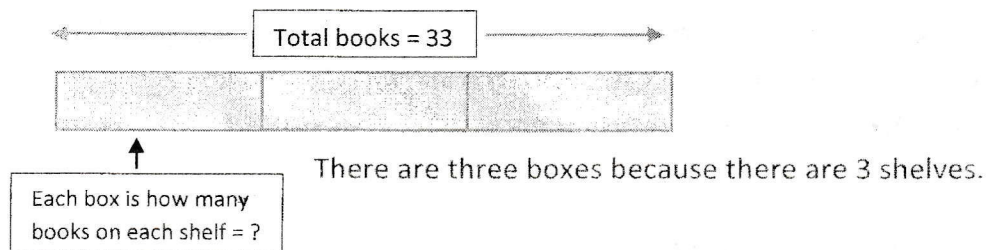
MCC.4.OA.2 Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.

In other words...I can replace a missing number or number I don't know (in a division or multiplication problem) by any letter to show that it is the number I need to know to solve the problem.

For example: Angel read 6 pages of her book on Monday. By Friday, she had read 10 times as many pages as on Monday. How many pages did she read by Friday? I see that she read "10 times as many" which means multiplication. I re-write the problem as: $10 \times 6 = p$ to show that I need to solve for p (pages she read). Angel read 60 pages by Friday.

I also know...which part of the problem (which number) is missing and how to show the missing number in an equation.

For example: The bookcase has 3 shelves. There are 33 books in the bookcase. How many books are on each shelf? This problem tells me how many books I have total and how many shelves (groups) I have. The missing part is the amount of books on each shelf or how many times I should multiply by three. I re-write the equation as $3 \times b = 33$ to show that I need to solve for b (number of books on each shelf). Since the problem tells me the total I can write the equation in a different way: $33 \div b = 3$ or $33 \div 3 = b$. There are 11 books on each shelf.



For example: Cameron went on a fishing trip. He caught 7 times as many fish on the third day as he did on the first. He caught 28 fish in all. How many fish did he catch on the first day? This problem tells me how times as many fish Cameron caught the third day (7 times as many) than the first day and I am given the total. The missing part is how many fish he caught the first day. I know this is multiplication because the problem says "7 times as many". I re-write the problem as $f \times 7 = 28$ to solve for f (the number of fish caught the first day). Since the problem tells me the total I can write this a different way: $28 \div 7 = f$. Cameron caught 4 fish on Monday.

