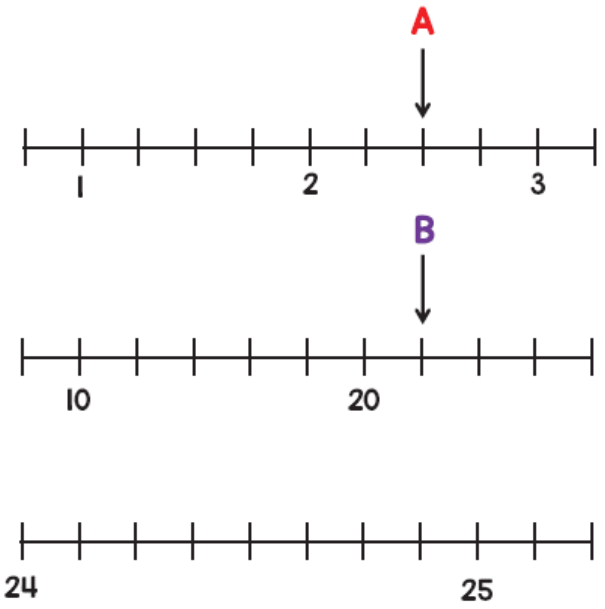
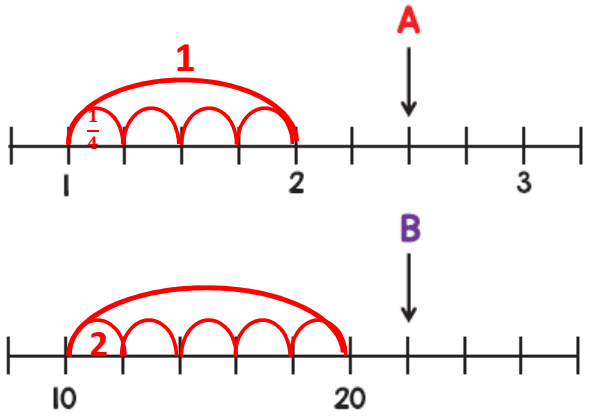
Problems of the Day *Day 12 Answers*

1 Given than A + B = C

Draw an arrow pointing to C



Remember to mark your number lines to calculate intervals



The marked interval is 1.
There are four small intervals, so each must be 1 ÷ 4 = $\frac{1}{4}$

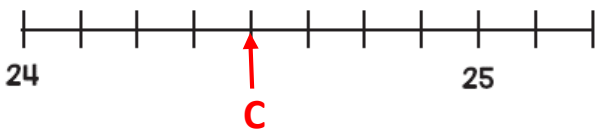
A = $2\frac{1}{2}$

The marked interval is 10
There are five small intervals, so each must be 10 ÷ 5 = 2

B = 22

We know that C = A + B

So C must be $24\frac{1}{2}$

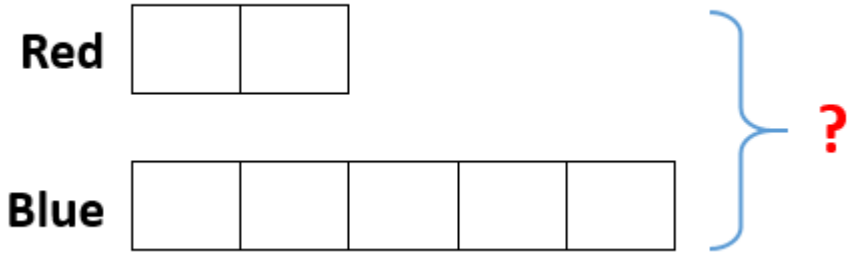


2 George has a box of counters.

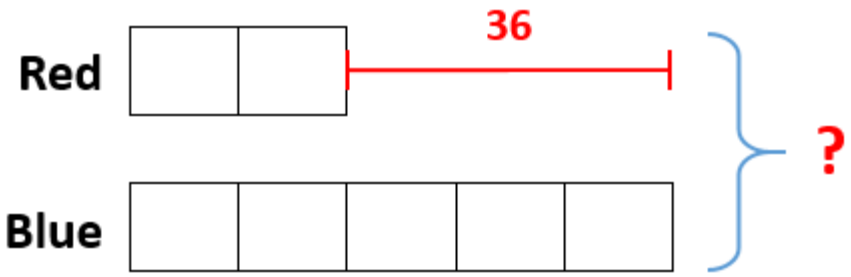
- For every 2 red counters there are 5 blue ones.
- George removes 36 blue counters from the box.
- There are now the same amount of red and blue counters.

How many red counters were in the box at the start?

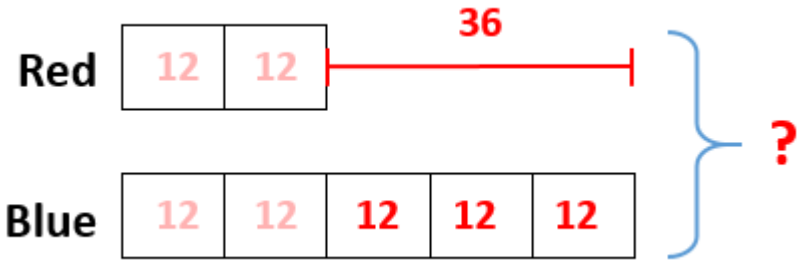
A bar model will help us to make sure that we identify the correct calculations:



We know that if we take away 36 blue counters, there will be the same amount of each colour. We can mark this on our bar:



We can see that three parts are equivalent to 36, so each part must be 12



There are seven parts in the whole, so the whole must be 7 x 12

George had 84 counters to begin with

3 Elijah says he divided 32 by a number and got 64
Is this possible?

There are a few ways of explaining Elijah's calculation. Here are a couple:

$32 \div \square = 64$

Rearranging the number sentence gives us:

$32 \div 64 = \square$

$\frac{32}{64} = \frac{1}{2}$

Elijah divided his number by half

If Elijah divided 32 by a number and the answer was more than 32, he must have divided 32 by a fraction.

64 is double 32. There are two halves in a whole, so he must have divided his number by half if his answer is double 32.