LO: To find missing values on a number line to 10,000 27.3.20

First, begin the lesson by completing a simulation of the year 4 multiplication test.

https://mathsframe.co.uk/en/resources/resource/477/Multiplication-Tables-Check

This link should allow you to access it. You have 25 random times table questions to answer and you are given 6 seconds to answer each one. Try not to use any times tables sheets/ resources to help you, we need to be fluent by now!

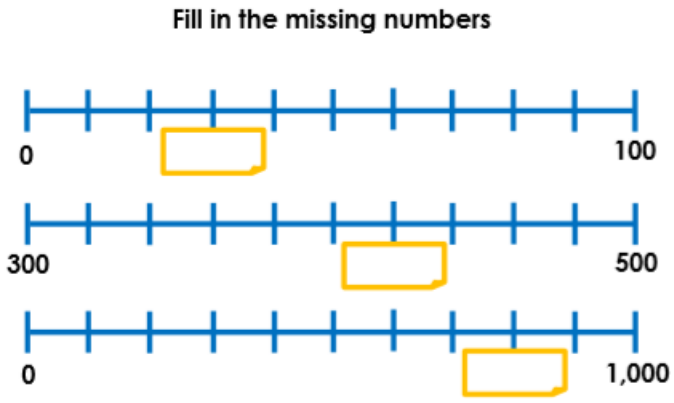
Lesson:

Today, we will be looking at number lines that range from anywhere between 0 – 10,000.

Remember, if a number line is split into sections like the one below, each line must be the same distance apart and each jump must be worth the same amount.

Have a go at drawing this number line in your book. Start at 0 and add 10 each time. What number do you end up with? Are all your jumps the same distance apart and worth 10? If so, well done.

Have a go at the following question below. For today's work, you can draw the number lines into your book and answer them or you can print them off and stick them in. I have attached a copy of the questions on the website underneath today's work to print if you want to. Remember to look at the scale, see which numbers are at the start and end of the number line. Work out what each jump is worth.



TOP TIP

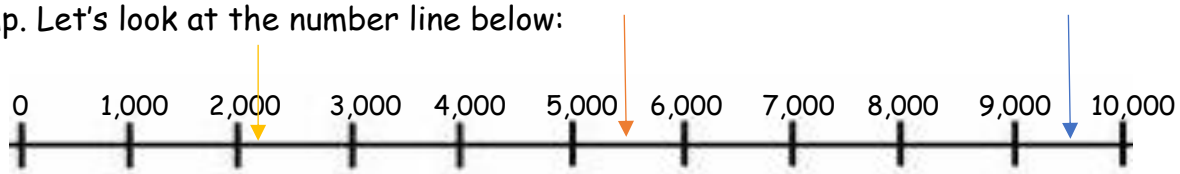
If you're having trouble finding out what each jump is worth, this will help you.

First, find out the scale (the end number take a way the start number). This will tell you what the whole number line is worth. For the first number line, the scale is 100 because 100 – 0 = 100. We now know that all the jumps are worth 100 when added together.

Now we need to work out what each little jump is worth, so we divide the scale (100) by how many jumps there are. In the first question there are 10 jumps.

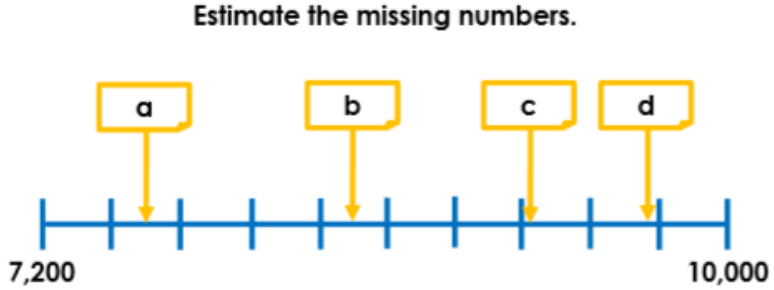
100 ÷ 10 = 10. Each jump must be worth 10.

Sometimes, you will be asked to find the values of numbers that aren't precisely on a number line jump. Let's look at the number line below:



The red arrow is asking to find out what number is exactly halfway between 5,000 and 6,000. We know that this is 5,500. The blue arrow is asking us to work out what number is exactly halfway between 9,000 and 10,000 which we know is 9,500. The yellow arrow is asking us to find out what number is one quarter if the way between 2,000 and 3,000 which we know is 2,250.

Have a go at estimating the four missing values of this question:

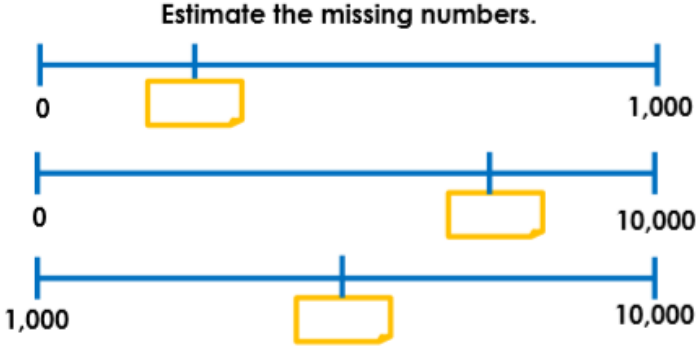


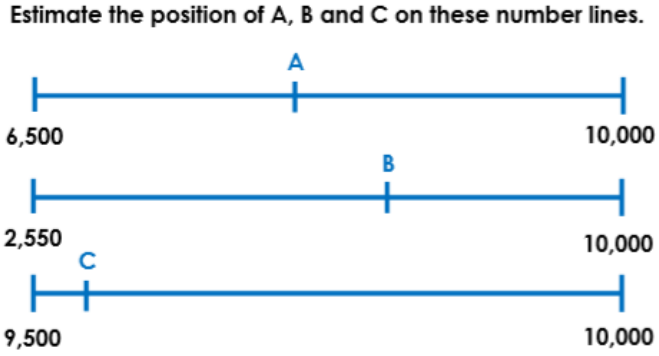
Sometimes, you are given number lines without any jump lines on at all, only start and end numbers. With these questions, you have to work out roughly what fraction of the way the missing number is on the number line. To do this, **you must check the scale first**.

For question 1, the scale is 0 to 1,000, so the scale is 1000. I know that halfway is 500, a quarter of the way is 250 and 3 quarters of the way is 750. The missing number looks like it is roughly one quarter of the way up the number line, so I am going to estimate that the missing number is 250.

REMEMBER TO ALWAYS LOOK AT THE SCALE! Line 3 is trying to trick you…

Have a go at answering these questions. If you get stuck on working out the scale, have a look at my top tip box on page 1.





Now it's time for you to practise your maths skills using Mathletics and Timestables.co.uk. Have fun! Keep learning your times tables.

If you need any help at all or would like to send me pictures of your amazing work, please email myself and Miss Senior. To those of you who received pens last week – I would love to see your handwriting! 😊

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