

NUMBER AND PLACE VALUE

Objective

- To solve numbers problems using the place value of each digit in three-digit numbers

Before they tackle this problem, ensure children have...

- Mastered recognising the place value of each digit in a three-digit number (hundred, tens, ones)
- Mastered comparing and ordering numbers up to 1000
- Mastered identifying, representing and estimating numbers using different representations
- Mastered reading and writing numbers up to 1000 in numerals and in words

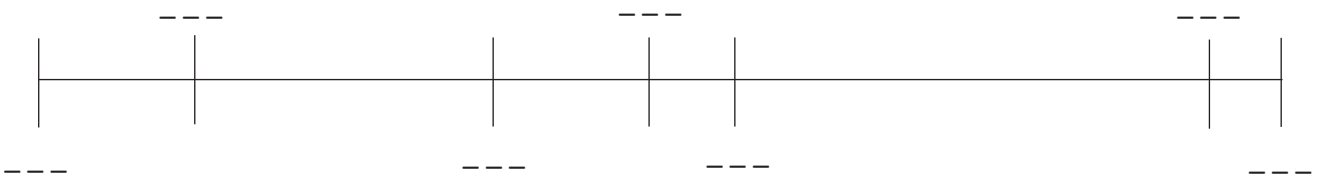
SETTING THE SCENE

A mischievous pumpkin (or character linked to your topic/current book) has come along and destroyed my number line. I had put these 3 digit numbers on there for you to look at and now they are on the floor. Can you work out where each of the three digit numbers would go on this blank number line? Give children a selection of 3 digit numbers to order.



EXPLORE

Now the pumpkin has hidden all the cards as well but he has left you some clues to put the number line back together. Can you solve this number line nightmare?



Clues:

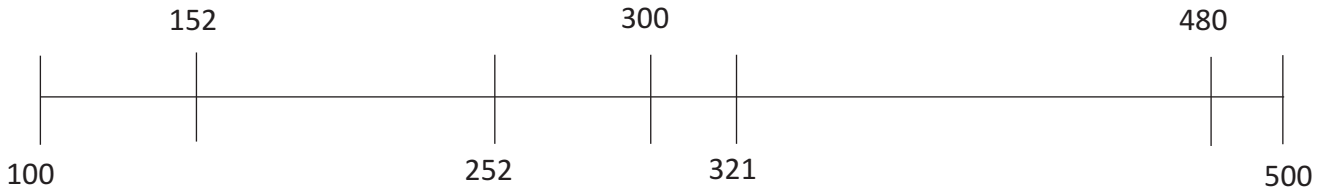
- The highest value has 5 hundreds, 0 tens and 0 ones
- One has 32 tens and _ ones
- One is 100 more than the 2nd smallest value
- One is 2 tens less than 500
- The three digits in one number total 6
- One value has 25 tens and 2 ones
- 300 is the middle value

Which clues would be the most valuable in starting the problem? Why?

Can children estimate where each three-digit number would be placed on the number line?

Can children justify why they have decided on each value?

Answer



TAKING IT FURTHER

Referring back to the original number line.

Now the mischievous pumpkin has used the same values but put them on to different number lines. Where would they sit on each number line? How would they move? Do you notice any patterns?



Can children efficiently find the middle value of each number line?

Can children adjust their original number line to fit the new ones?

OUTCOME

Children should be able to estimate the position of three-digit numbers on a number line whilst also adjusting them to fit other scales.