

Use scales

Notes and guidance

In Year 2, children began using grams and kilograms when exploring mass. In this block, children continue to explore mass in kilograms and grams before moving on to capacity.

An essential skill in this block is for children to be able to use and understand scales. This small step provides opportunity for children to become more familiar with using scales to read measurements. The focus is on dividing 100 into 2/4/5/10 equal parts using number lines, before applying this skill in various contexts later in the block. By working out what the interval gaps are on a number line, children become more experienced at reading scales in the context of measurement. They learn what size groups are made when 100 is split into equal parts, then extend this learning to other multiples of 100

Things to look out for

- Children may be confused by intervals of different values due to different start and end points on number lines.
- Children may count the number of divisions rather than the number of intervals.
- Some children may not know what 100 or a multiple of 100 divided by 2/4/5/10 is worth.

Key questions

- What is the value at the start of the number line?
- What is the value at the end of the number line?
- How many equal parts is the number line split into?
- What is the value of each interval on the number line?
- What is the value of each part if 100 is divided into _____ equal parts?
- What is the same/different about these two number lines?
- What does this mark on the number line represent? How do you know?

Possible sentence stems

- If 100 is shared into _____ equal parts, then each part is worth _____
- The number line is counting up in _____ s.
- When counting up in _____ s, the _____ interval is _____

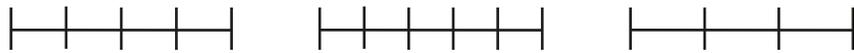
National Curriculum links

- Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)

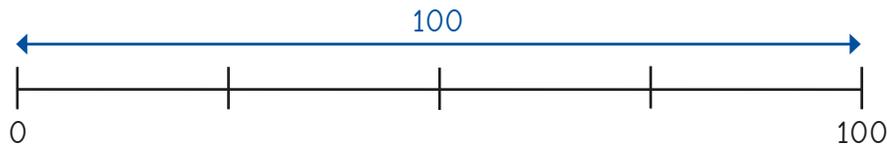
Use scales

Key learning

- How many equal parts has each number line been split into?



- Tommy is labelling this number line.

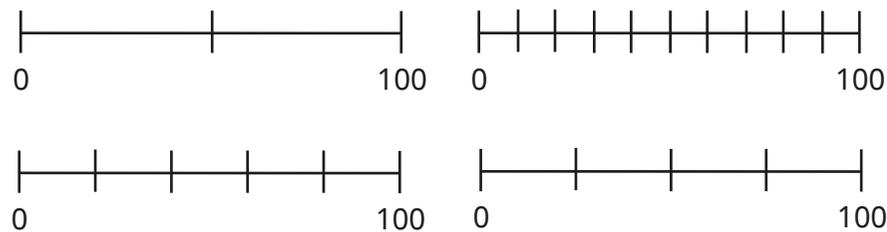


$100 \div 4 = 25$
The number line is counting up in 25s.

Why did Tommy divide 100 by 4?

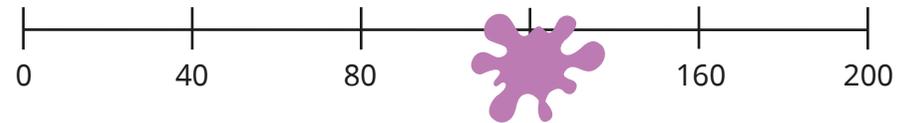
Label Tommy's number line.

- Label the number lines.

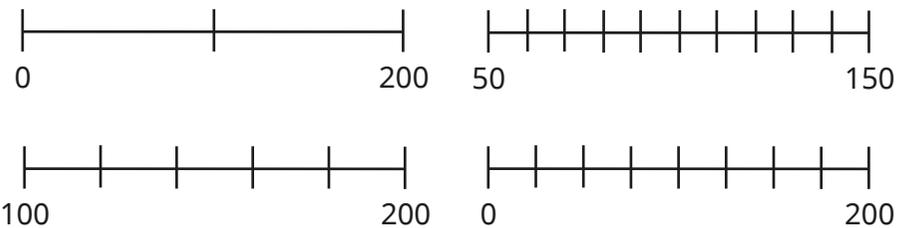


- Dani divides 200 into 5 equal parts on a number line. She spills some paint.

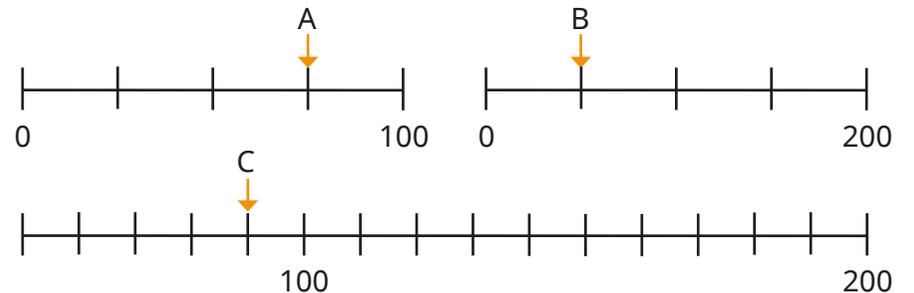
What number is the paint covering?



- Label the number lines.

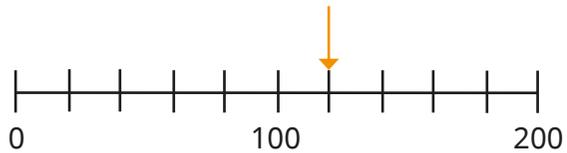


- What number is each arrow pointing to?

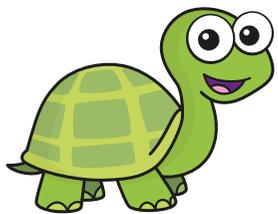


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Reasoning and problem solving



The arrow is pointing to 110, because 10 more than 100 is 110

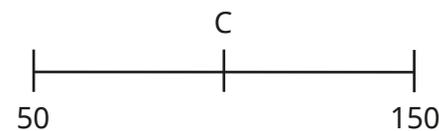
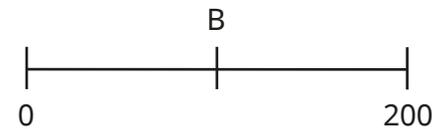
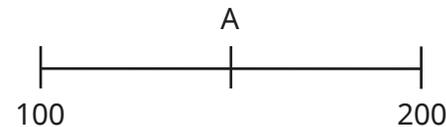


Do you agree with Tiny?
Explain your answer.



No

A, B and C are three numbers on different number lines.



Which number is the greatest?

What number would appear on all three number lines?

What number would only appear on one of the number lines?

Is there more than one answer?



A (150)

B and C: 100

any number
100–150

any number 0–49