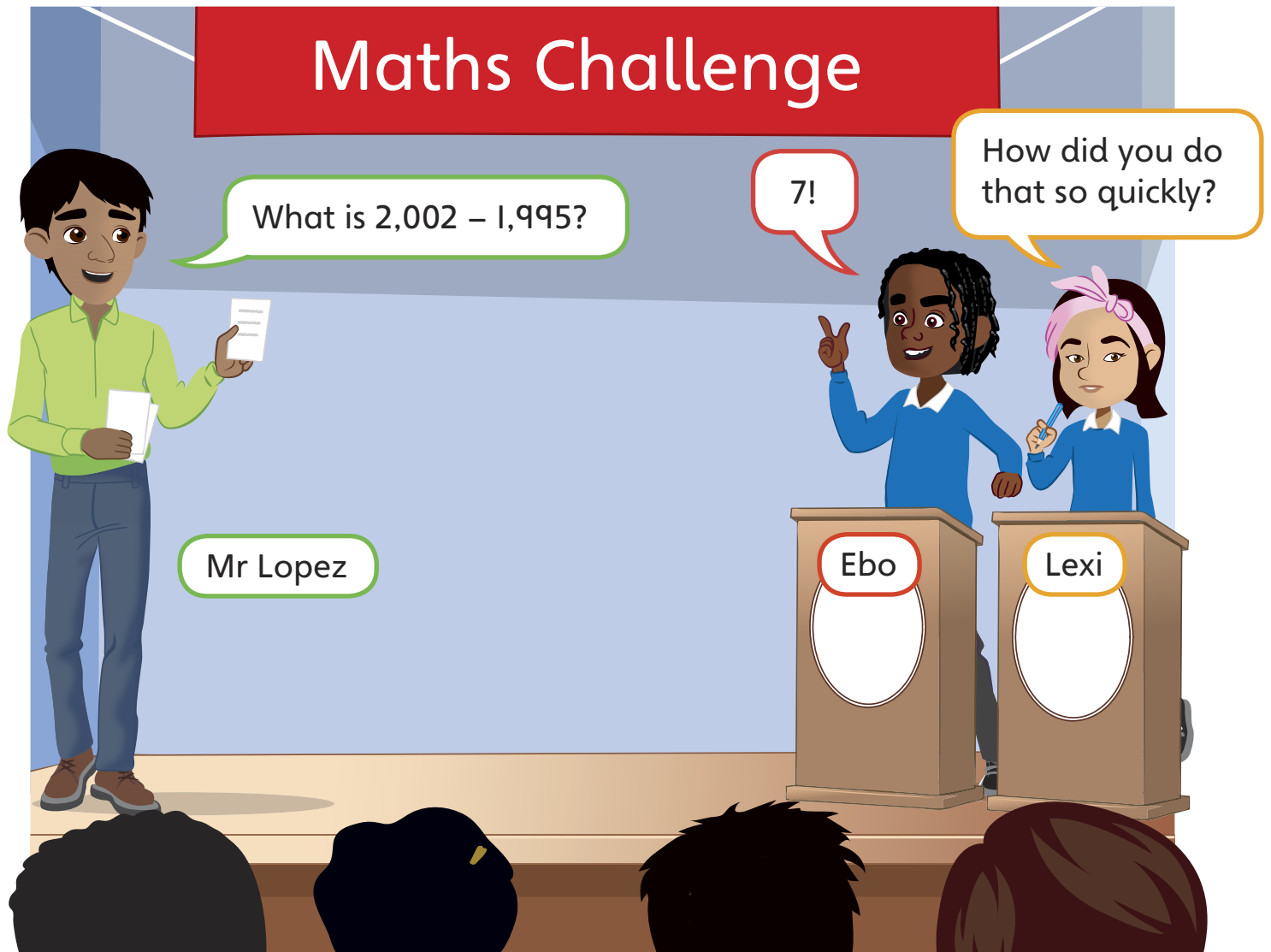


Mental addition and subtraction 2

Discover



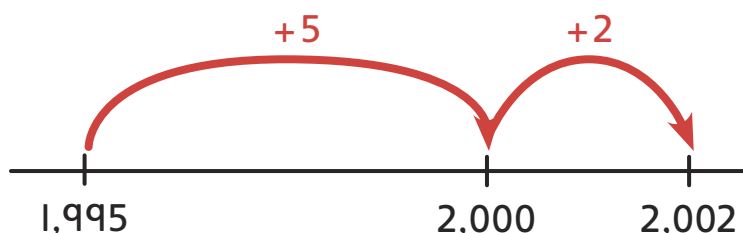
- 1** a) Explain how Ebo could have found the answer so quickly in his head.
- b) Mr Lopez then asks, 'What is $760 - 250$?'

Work out the answer mentally and explain your method to a partner.

Share

a)

These numbers are very close together.
I imagined a number line in my head and worked out how many I needed to count on.



$$1,995 + 5 + 2 = 2,002$$

$$1,995 + 7 = 2,002$$

$$\text{So, } 2,002 - 1,995 = 7$$

This is how Ebo could have quickly found the answer in his head.

b) To solve $760 - 250$ in your head, first partition the number into hundreds and tens.

Subtract the 100s first.

$$700 - 200 = 500$$

$$\text{So, } 760 - 250 = 510.$$

Then subtract the 10s.

$$60 - 50 = 10$$

It can be easier to do questions like this in your head rather than using a written method.

I did it a different way. I subtracted 200 to get 560 and then subtracted 50 to get 510.



Think together

1 Match each thought bubble to the calculation that it solves.

Two of the bubbles match to the same calculation.

$$76 - 40$$

$$76 - 42$$

$$72 - 46$$

$$76 - 40 = 36$$

$$36 - 2 = 34$$

$$72 - 40 = 32$$

$$32 - 2 = 30$$

$$30 - 4 = 26$$

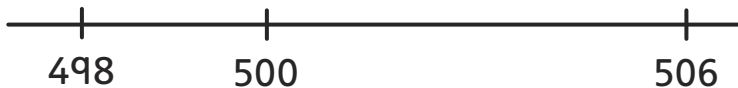
$$70 - 40 = 30$$

$$6 - 2 = 4$$

$$30 + 4 = 34$$

$$76 - 40 = 36$$

2 a) Work out $506 - 498$ by counting on.



b) Now solve these calculations mentally.

You could try imagining a number line in your head.

$$710 - 697$$

$$4,302 - 4,299$$

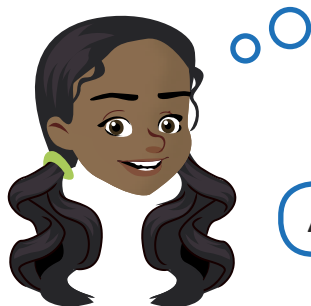
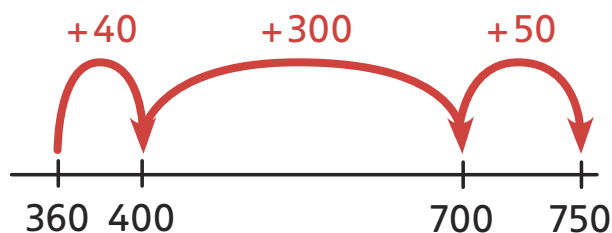
$$10,005 - 9,987$$

CHALLENGE

- 3 Ambika and Andy are using different methods to work out this missing number in their heads.

$$360 + \square = 750$$

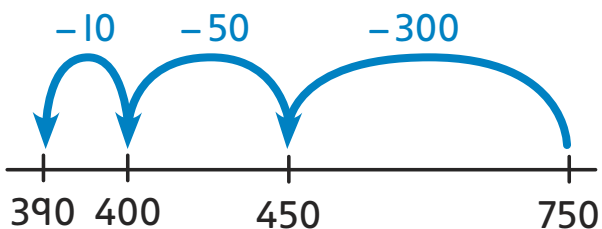
$$\begin{aligned} 360 + 40 &= 400 \\ 400 + 300 &= 700 \\ 700 + 50 &= 750 \\ 40 + 300 + 50 &= 390 \end{aligned}$$



Ambika

I am going to do a subtraction, $750 - 360$.

$$\begin{aligned} 750 - 300 &= 450 \\ 450 - 50 &= 400 \\ 400 - 10 &= 390 \end{aligned}$$



Andy

- a) Why do both of these methods work?
b) Which one do you prefer?

I wonder if I can use each of these methods to work out $640 + \square = 920$.



I think I have seen one of these methods before, in the previous lesson.



Using inverse operations

Discover



- 1 a) What addition calculations can Reena and Lee do to check their answers? Who is correct?
- b) What mistake has the other person made?