Mental strategies for addition and subtraction

1 **a)** Tick the calculations that are equivalent to 46 + 99

40 + 90 + 6 + 9 ☑   45 + 100 ☑   46 + 90 + 9 ☑

99 + 6 + 40 ☑   46 + 100 − 1 ☑   99 + 40 + 6 ☑

b) What method would you use to work out 46 + 99 in your head?

Discuss with a partner.

2 Look at Scott's method for working out 364 + 297

> 364 + 297
> − 3   + 3
> 361 + 300
> 631

Discuss with a partner why Scott's method works.

Use Scott's method to work out these calculations. Show your method.

a) 98 + 28 = 126

d) 195 + 237 = 432

b) 692 + 299 = 991

e) 567 + 294 = 861

**c)** 712 + 995 = 1,707

f) 3,756 + 1,997 = 5,753

3 The number line shows a different way to work out 364 + 297
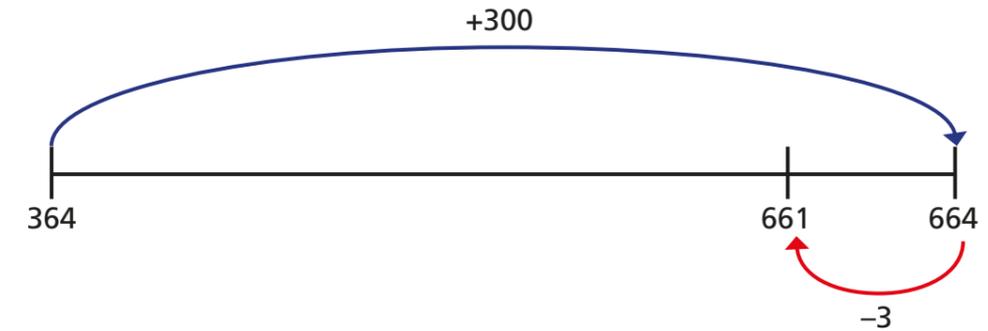
Use a number line to work out these additions.

a) 645 + 99 = 744

b) 317 + 298 = 615

c) 194 + 458 = 652
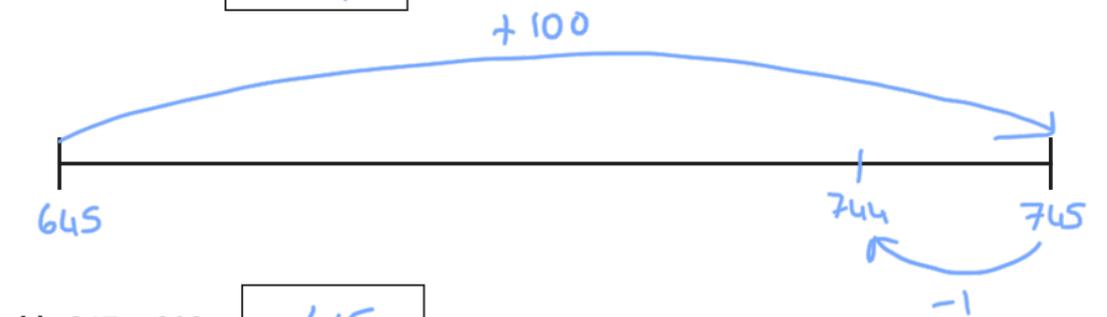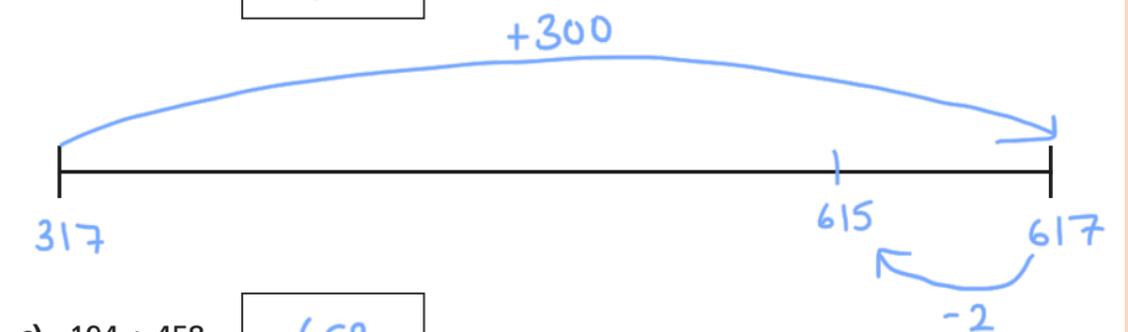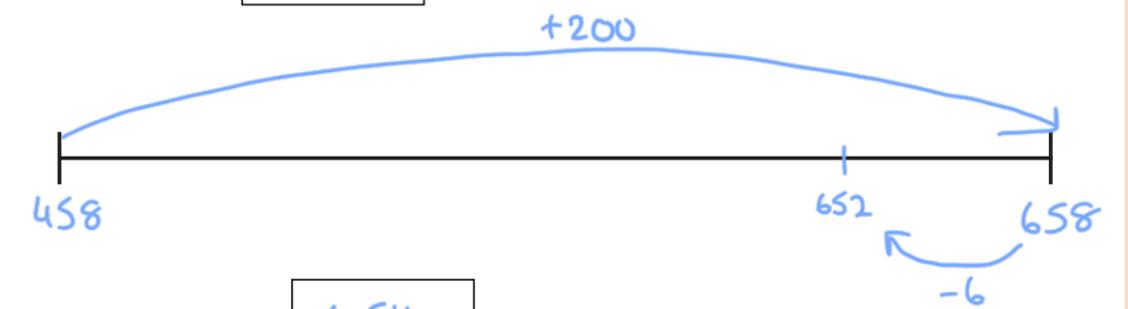
d) 3,516 + 2,995 = 6,511
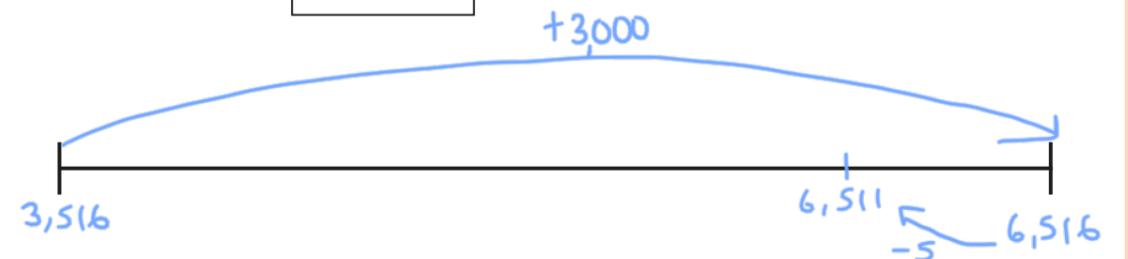
4

I can work out
803 − 99 by doing
803 − 100 − 1

Draw a diagram to show the mistake that Dexter has made.
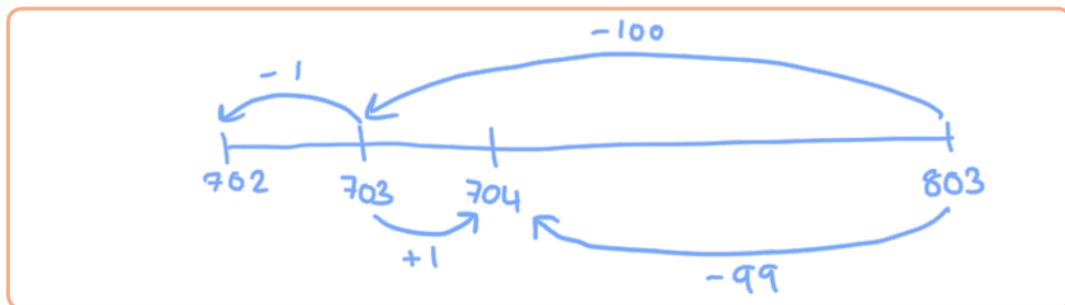

Talk about your answers with a partner.

5 Look at Dora's method for working out 180 − 57

$$180 - 50 = 130$$
$$130 - 7 = 123$$

Use Dora's method to work out these calculations. Show your method.

a) 180 − 42 = $\boxed{138}$

180 − 58 = $\boxed{122}$

180 − 131 = $\boxed{49}$

b) 360 − 35 = $\boxed{325}$

360 − 147 = $\boxed{213}$

360 − 228 = $\boxed{132}$

c) Why are 180 and 360 useful numbers to practise subtracting from?

They are used a lot in angles.

6 a) Circle the calculations that are equivalent to 17.3 + 9.9

17.3 + 9 + 0.9   17.3 + 10 − 0.1   17.2 + 10

b) Which method would you use to work out 17.3 + 9.9 in your head? Explain why.

7 Match each calculation on the left to a calculation on the right.

18.6 + 9.9	18.6 − 10 + 0.1
18.7 + 9.9	18.5 + 10
18.6 − 9.9	18.8 − 10
18.7 − 9.9	18.7 + 10 − 0.1
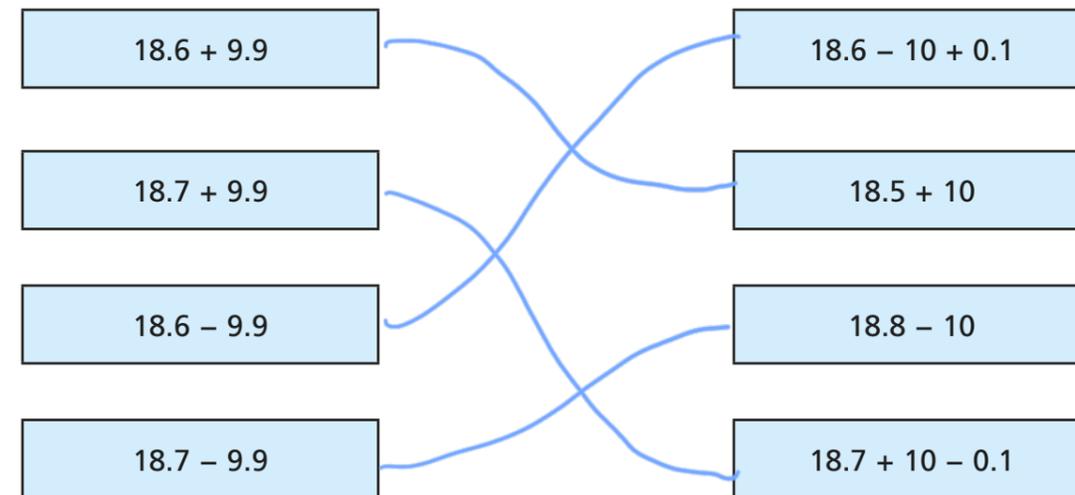
8 Amir and Rosie are comparing methods to subtract 0.26 from 1

Amir's method	Rosie's method
$1 - 0.2 = 0.8$	$0.26 + 0.04 = 0.3$
$0.8 - 0.06 = 0.74$	$0.3 + 0.7 = 1$
$1 - 0.26 = 0.74$	$0.7 + 0.04 = 0.74$
	$1 - 0.26 = 0.74$

Use your preferred method to complete the calculations.

a) 1 − 0.17 = $\boxed{0.83}$ d) 86.3 − 0.99 = $\boxed{85.31}$

b) 1,000 − 213 = $\boxed{787}$ e) 86.3 − 9.9 = $\boxed{76.4}$

c) 5 − 2.38 = $\boxed{2.62}$ f) 100 − 9.9 = $\boxed{90.1}$