

# Know and use mental addition and subtraction strategies for integers

1 Ron is working out  $46 + 28$  mentally.

$46 + 20$  is equal to 66



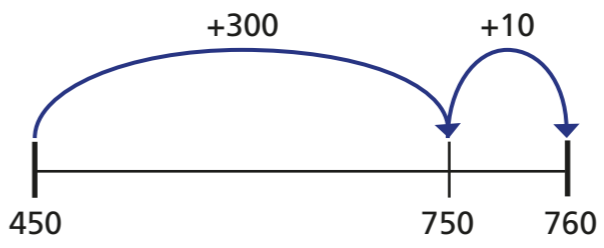
Then I am going to add on the 8.  $66 + 8 = 74$

Work out the additions mentally.  
You could use a method similar to Ron's.

- a)  $53 + 12 =$
- b)  $44 + 42 =$
- c)  $35 + 43 =$
- d)  $47 + 25 =$
- e)  $39 + 25 =$
- f)  $27 + 18 =$
- g)  $76 + 19 =$
- h)  $13 + 25 + 48 =$

2 Eva is trying to work out  $240 + 320$  mentally.  
Write the steps she might follow to work it out.

3 Brett imagines a number line in his head to add two 3-digit numbers.



What two numbers do you think Brett is trying to add together?  
 and

4 Work out the additions mentally.

- a)  $300 + 450 =$
- b)  $310 + 250 =$
- c)  $430 + 360 =$
- d)  $180 + 320 =$
- e)  $680 + 170 =$
- f)  $450 + 390 =$

5 Work out the additions mentally.  
Then write the steps in your thinking.

- a)  $170 + 570 =$
- b)  $250 + 250 + 380 =$

6 Amir wants to add together 72 and 99

I added 100 to 72 and then subtracted 1

So the answer is 171



Amir is correct.

Explain why Amir's method works.

7 Use a method similar to Amir's method in question 6 to work out the additions mentally.

a)  $65 + 99 =$

e)  $54 + 98 =$

b)  $99 + 38 =$

f)  $97 + 438 =$

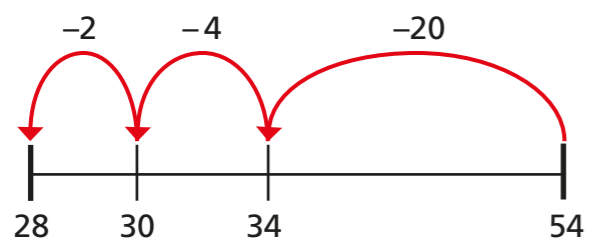
c)  $156 + 99 =$

g)  $732 + 190 =$

d)  $99 + 294 =$

h)  $199 + 237 =$

8 The number line shows what Kim does mentally to work out  $54 - 26$



Show the calculation you might do mentally to work out  $182 - 37$



9 Here are some subtractions. Work them out mentally.

a)  $48 - 26 =$

f)  $356 - 99 =$

b)  $270 - 160 =$

g)  $8 - 12 =$

c)  $380 - 182 =$

h)  $150 - 78 =$

d)  $72 - 29 =$

i)  $1,000 - 276 =$

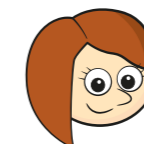
e)  $320 - 260 =$

Talk about your method with a partner.

10 Rosie is working out  $244 - 99$  mentally.

$244 - 100 = 144$   
 $144 - 1 = 143$

The answer is 143



Explain Rosie's mistake.

11 Work out the calculations mentally.

a)  $274 \text{ kg} - 99 \text{ kg} =$   kg

b)  $£200 - £156 =$  £

c)  $1 \text{ litre} - 270 \text{ ml} =$   ml

d)  $374 \times 2 =$

e)  $£25,000 + £176,000 =$  £

f)  $£10,000 - £3,725 =$  £