

Know when to use a mental strategy, formal written method or a calculator

1 Work out the calculations.

You can use a written or a mental strategy.

If you use a mental method, explain how you did it.

a) $170 + 120 =$ 290

c) $75 \times 100 =$ 7,500

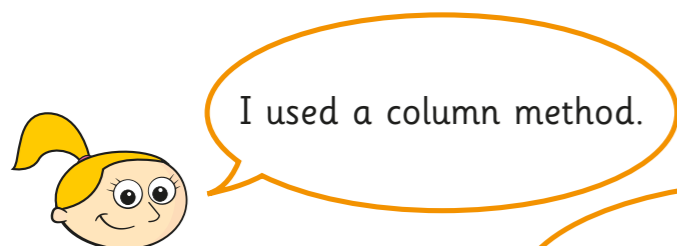
b) $15 \times 36 =$ 540

d) $6.56 \div 2 =$ 3.28

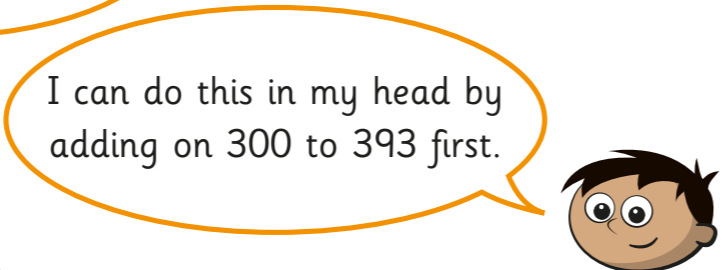
Discuss your methods and answers with a partner.

Did you use the same method?

2 Eva and Amir are discussing how to work out $299 + 393$



Eva



Amir

a) Complete Eva's method.

		2	9	9	
	+	3	9	3	
		6	9	2	
		1	1		

b) Explain what Amir did next.

$300 + 393 - 1 = 692$

c) Explain why Amir's method works.

3 Tick the calculations that are quicker to do mentally than using a written method.

17×38	5×100 ✓ 500	13×30 ✓ 390
$4,200 \div 7$ ✓ 60	$1,950 \div 3$	$23 \div 0.5$ ✓ 46

For those that you can do mentally, write the answer next to the calculation.

4 Mr Singh is buying five books.

Each book costs £4.99



			4	9	9	
	×				5	
		2	4	9	5	
			4	4		

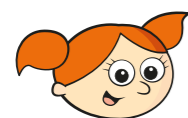
$£4.99 \times 5 = £24.95$

Explain a quicker, mental method that Mr Singh might have used.

$£5 \times 5 = £25$

$£25 - 5p = £24.95$

- 5 Alex wants to buy 28 cans of drink.
Each can costs 29p.
She has £10



I need to use a calculator to work out if I've got enough money.

- a) Explain how Alex can work this out mentally.

$29p \approx 30p$ $28 \approx 30$ $30 \times 30p = 900p = £9$
She has enough money

- b) Show how Alex can work this out using a written method.

$30 \times 29p = £8.70$ $2 \times 29p = 58p$ $£8.70 - 58p = £8.12$

- c) Does Alex have enough money? Yes

Compare answers with a partner.



- 6 Aisha works out $1,006 - 998$

		0	9	9		
		1	0	0	16	
	-		9	9	8	
		0	0	0	8	

Explain a quicker way Aisha could have done this mentally.

Count on from 998 to 1,006

- 7 Mrs Glover sets her class some questions.

Work out the answer to each calculation. Show each stage of your workings.

a) $101 + 202 + 303$

$100 + 200 + 300 = 600$
 $1 + 2 + 3 = 6$
 $101 + 202 + 303 = 606$

b) 43×9

$40 \times 9 = 360$
 $3 \times 9 = 27$
 $43 \times 9 = 387$

c) $29.43 + 3.74$

$29 + 3 = 32$
 $0.4 + 0.7 = 1.1$
 $0.03 + 0.04 = 0.07$
 $29.43 + 3.74 = 33.17$

d) $1,786 - 1,779$

$1,779$ $1,786$

$+7$

Compare your method with a partner's.

