

# Choose the most appropriate method: mental strategies, formal written or calculator

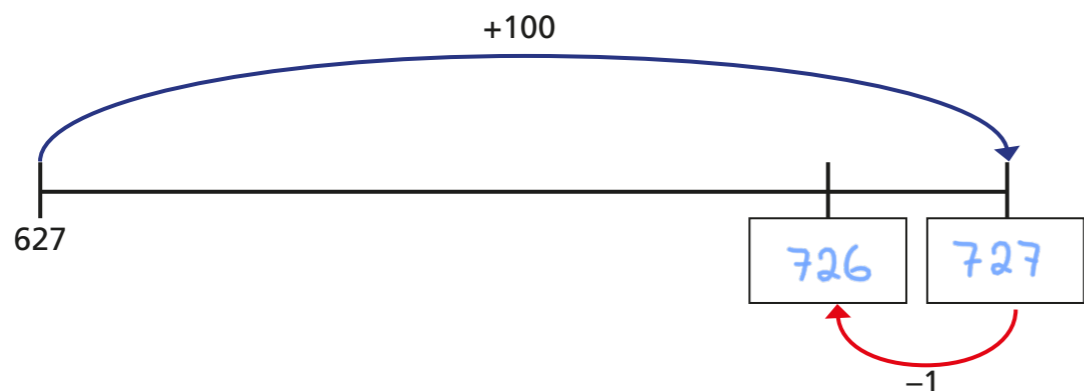
1 a) Estimate the answer to  $627 + 99$

700

b) Use the column method to work out  $627 + 99$

		6	2	7	
		+	9	9	
			7	2	6
			1		

c) Complete the number line.



How does the number line represent  $627 + 99$ ? Discuss with a partner.

d) Which method is more efficient?

Discuss it with a partner.

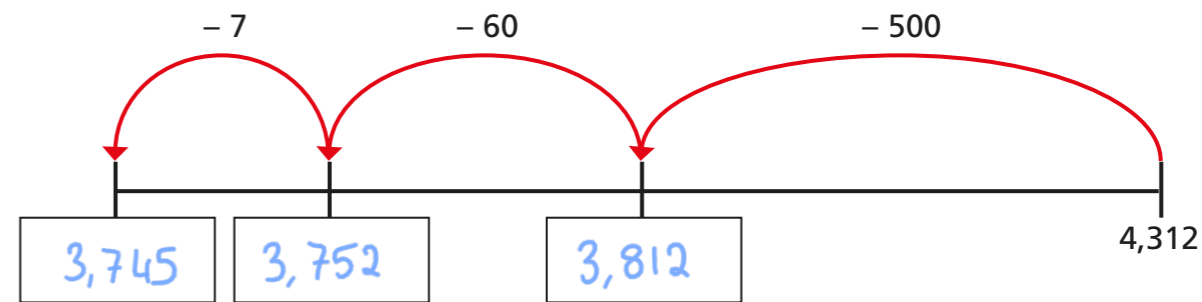
2 a) Estimate the answer to  $4,312 - 567$

3,700

b) Use the column method to work out  $4,312 - 567$

		3	12	10	
		4	3	1	2
		-	5	6	7
			3	7	4
					5

c) Complete the number line.



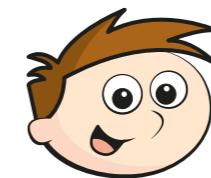
How does the number line represent  $4,312 - 567$ ?

d) Which method is more efficient?

3 a) Work out  $£10.00 - £2.58$  using a column method.

$$\begin{array}{r} 10.00 \\ - 2.58 \\ \hline 7.42 \end{array}$$

£7.42



£10.00 - £2.58 is the same as £9.99 - £2.57

b) Explain why Teddy is correct.

The difference is the same.

c) Use a column method to work out  $£9.99 - £2.57$

$$\begin{array}{r} 9.99 \\ - 2.57 \\ \hline 7.42 \end{array}$$

d) Which column subtraction was easier? Why?

4 Adapt Teddy's method to work out the answers to these calculations.

a)  $£20 - £12.43 =$  £7.57      c)  $1,000 - 421 =$  579

b)  $10,000 - 6,274 =$  3,726      d)  $3,000 - 1,421 =$  1,579

5 Write the answers to these calculations.

a)  $3 \text{ million} + 5 \text{ million} =$  8 million

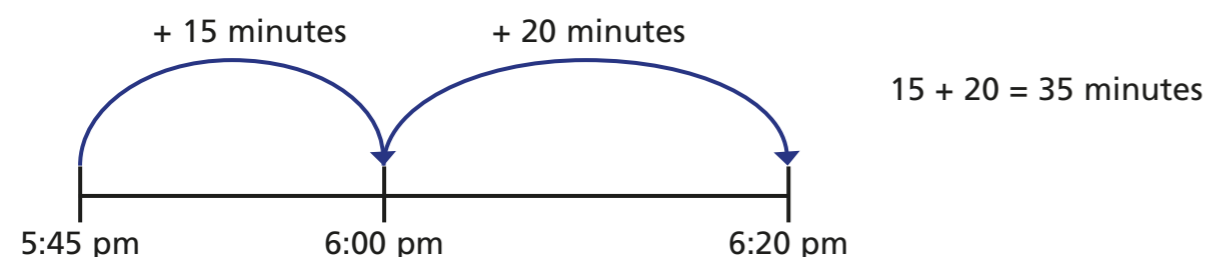
b)  $7 \text{ billion} - 2 \text{ billion} =$  5 billion

c)  $47 \text{ thousand} + 100 \text{ thousand} =$  147 thousand

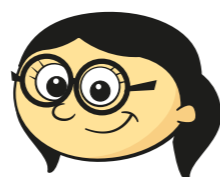
d)  $600 \text{ million} - 400 \text{ million} =$  200 million

Discuss with a partner why you did not need a calculator for these calculations even though the numbers are large.

6 The number line shows how long it is from 5:45 pm to 6:20 pm.



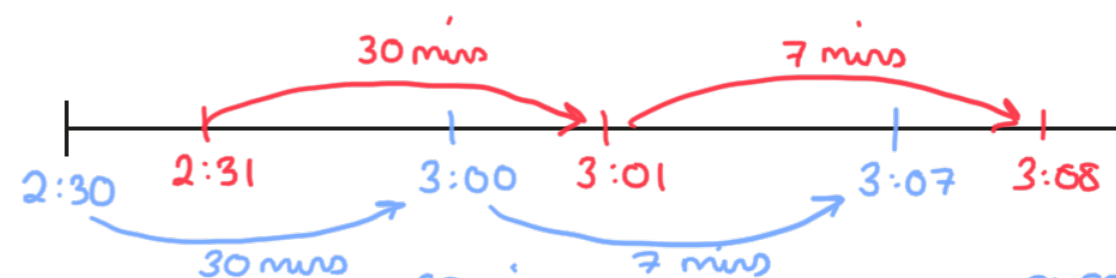
I did  $6.20 - 5.45$  on my calculator and got the answer 0.75. That's three-quarters of an hour so it is forty-five minutes.



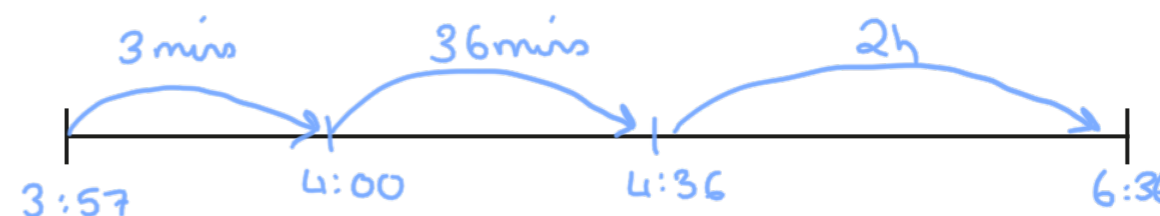
Explain why the calculator gives the wrong answer.

7 Draw on the number lines to find how long it is between these times.

a) 2:30 pm and 3:07 pm 37 mins      b) 2:31 pm and 3:08 pm 37 mins



c) 3:57 am and 4:36 am 39 mins      d) 3:57 am and 6:36 am 2h 39 mins



8 Decide whether a mental, formal written or calculator method would be best for each calculation.

Circle your choice and then use your chosen method to find the answer.

a) How much change should you get from £10 if you spend £3.47?

mental      formal written      calculator

change = £6.53

b) Mo buys a new TV for £599 and a new phone for £699. How much does he spend altogether?

mental      formal written      calculator

total spend = £1,298

c)  $63,476 + 87,916$

mental      formal written      calculator

answer = 151,392

