Mark schemes

1.   (a)   11 written in the first box, as shown:

11	25	53	

1

(b)   109 written in the last box, as shown:

	25	53	**109**

1

[2]

2.   (a)   5

1

(b)   13

1

[2]

3.   (a)   42

1

(b)   11

1

[2]

4.   Award **TWO** marks for the correct answer of 3.75

If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, e.g.

- 60 ÷ 4 = 15
- 250 × 15 = 3750
- 3750 ml ÷ 1000 =

OR

- 250 ÷ 4 = 62.5 ml per second
- 62.5 × 60 = 3750
- 3750 ml ÷ 1000 =

OR

- 60 ÷ 4 = 15, so there are 15 lots of 4 seconds in 1 minute so there are 15 bottles per minute.
- There are 4 bottles in 1 litre
- 15 ÷ 4 =

> *Accept for **TWO** marks, 3,750 ml for final answer in working and the answer box blank **OR** 3,750 in the answer box where the litres has been replaced with millilitres.*
>
> *Accept for **ONE** mark 3,750 litres (l) in the answer box **OR** the final answer in working and answer box blank.*
>
> *Answer need not be obtained for the award of **ONE** mark.*

Up to 2m

[2]

5. Award **TWO** marks for all symbols correct, as shown:

11 × 12	**<**	15 × 10
90 ÷ 30	**=**	60 ÷ 20
120 ÷ 4	**>**	160 ÷ 8
30 × 8	**<**	100 × 10

Award **ONE** mark for any three symbols correct.

Up to 2 marks

[2]

6. Award **TWO** marks for the correct answer of 29

If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, e.g.

- 2 × 500 = 1,000
  1,000 ÷ 34 =

OR

- 2 × 500 ÷ 34 =

OR

- 500 ÷ 34 = 14 r23 *(error)*
  14 r23 × 2 = 28 r46

OR

- 34 × 10 = 340
  34 × 30 = 1,020

Answer = 30 booklets *(error)*

> *Answer need not be obtained for the award of **ONE** mark.*
>
> *Answer does not need to have been rounded or rounded correctly for the award of **ONE** mark.*
>
> *If a pupil reaches a non-integer answer, for example 28 r2 and expresses it as 28.2 without further working, this is considered a notation error and is condoned.*
>
> *Within an appropriate method, if the pupil's remainder from 500 divided by 34 is less than 17 and this remainder is ignored before doubling, this is acceptable for **ONE** mark. If the pupil's remainder is 17 or more and it has been ignored before doubling, this is **not** acceptable for **ONE** mark.*
>
> ***Do not** accept a trial and improvement method.*
>
> **Up to 2 marks**

[2]

7. Award **THREE** marks for the correct answer of 7,174

If the answer is incorrect, award **TWO** marks for:

- evidence of an appropriate complete method which contains no more than **ONE** arithmetic error, e.g.

$$\begin{array}{r} 53 \\ \times \quad 68 \\ \hline 3504 \end{array} \text{ (error)} \qquad \begin{array}{r} 105 \\ \times \quad 34 \\ \hline 3570 \end{array}$$

3,504 + 3,570 = 7,074

Award **ONE** mark for:

- evidence of an appropriate method with more than **ONE** arithmetic error.

OR

- sight of 3,604 as evidence of long multiplication step (68 × 53) completed correctly.

OR

- sight of 3,570 as evidence of long multiplication step (105 × 34) completed correctly.

> *Answer need not be obtained for the award of **ONE** mark.*
>
> *A misread of a number may affect the award of marks. No marks are awarded if there is more than **ONE** misread or if the mathematics is simplified.*
>
> ***TWO** marks will be awarded if an appropriate method with the misread number is followed through correctly.*
>
> ***ONE** mark will be awarded for evidence of an appropriate method with the misread number followed through correctly with no more than **ONE** arithmetic error.*
>
> **Up to 3m**

[3]

8. Award TWO marks for the correct answer of 3.6

If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, eg:

- 10 ÷ 0.05 = 200
  200 × 1.8 = 360
  360 ÷ 100

OR

- 20 5p coins make £1
  200 5p coins make £10
  200 × 0.018

> *Answer must be in metres for the award of **TWO** marks.*
>
> *Accept for **ONE** mark 360 centimetres.*
>
> *If the answer is incorrect, accept for **ONE** mark an answer of 36 multiplied by any power of 10 with no evidence of an incorrect method.*
>
> *Answer need not be obtained for the award of **ONE** mark.*

Up to 2

[2]

9. Award **TWO** marks for the correct answer of £0.90

If the answer is incorrect, award **ONE** mark for evidence of an appropriate method, e.g.

- £1.35 × 2 = £2.70
  £2.70 ÷ 3

> *Accept for **ONE** mark an answer of £90p **OR** £0.9 as evidence of an appropriate method.*
>
> *Answer need not be obtained for the award of **ONE** mark.*

Up to 2m

[2]