

Mark scheme - Multiplication

Q1. 253.4

[1]

Q2. 1,200

[1]

Q3. Award **TWO** marks for the correct answer of 3,266

If the answer is incorrect, award **ONE** mark for the formal method of long multiplication with no more than **ONE** arithmetical error,

e.g.

$$\begin{array}{r} \cdot \quad 71 \\ \times \quad 46 \\ \hline 426 \\ 2840 \\ \hline 3260 \text{ (error)} \end{array}$$

OR

$$\begin{array}{r} \cdot \quad 71 \\ \times \quad 46 \\ \hline 426 \\ 2440 \text{ (error)} \\ \hline 2866 \end{array}$$

*Working must be carried through to reach a final answer for the award of **ONE** mark.*

Do not award any marks if the error is in the place value, e.g. the omission of the zero when multiplying by tens:

$$\begin{array}{r} 71 \\ \times \quad 46 \\ \hline 426 \\ 284 \text{ (place value error)} \\ \hline 710 \end{array}$$

Up to 2m

[2]

Q4. 128

[1]

Q5. 120

[1]

Q6.

$$\frac{1}{6}$$

[1]

Q7. 56

[1]

Q8. Award **TWO** marks for the correct answer of 22,572

If the answer is incorrect, award **ONE** mark for a formal method of long multiplication with no more than **ONE** arithmetic error, e.g.

$$\begin{array}{r} \cdot \\ \times \quad 836 \\ \quad \underline{27} \\ \quad 5852 \\ \underline{16720} \\ 22602 \text{ (error)} \end{array}$$

OR

$$\begin{array}{r} \cdot \\ \times \quad 836 \\ \quad \underline{27} \\ \quad 5612 \text{ (error)} \\ \underline{16720} \\ 22332 \end{array}$$

*Working must be carried through to reach a final answer for the award of **ONE** mark.*

***Do not** award any marks if the error is in the place value, e.g. the omission of the zero when multiplying by tens:*

$$\begin{array}{r} \cdot \\ \times \quad 836 \\ \quad \underline{27} \\ \quad 5852 \\ \underline{1672} \text{ (place value error)} \\ 7524 \end{array}$$

Up to 2m

[2]

Q9. 12

Commentary: Pupils are expected to use their knowledge of the order of operations to carry out calculations involving the four operations (6C9) in this case to evaluate 4×2 first and then to subtract that product from 20.

[1]

Q10. 34800

[1]

Q11. 630,000

[1]

Q12. 310

[1]

Q13. 107.4

[1]

Q14. Award **TWO** marks for the correct answer of 36,612.

If the answer is incorrect, award **ONE** mark for the formal method of long multiplication which contains no more than **ONE** arithmetical error, e.g:

•
$$\begin{array}{r} 678 \\ \times \underline{54} \\ 33900 \\ \underline{2712} \\ \text{wrong answer} \end{array}$$

Do not award any marks if:

- the error is in the place value, e.g. the omission of the zero when multiplying by tens, i.e:

$$\begin{array}{r} 678 \\ \times \underline{54} \\ 3390 \\ \underline{2712} \\ \text{wrong answer} \end{array}$$

- the final (answer) line of digits is missing.
Working must be carried through to reach an answer for the award of **ONE** mark.

Up to 2

[2]

Q15.

$$\begin{array}{r} 2 \\ \hline 5 \end{array}$$

Accept equivalent fractions or an **exact** decimal equivalent,

$$\frac{12}{30}$$

e.g. $\frac{12}{30}$ or 0.4

[1]

Q16. 91.5

[1]

Q17. 445.2

[1]

Q18.

Award **TWO** marks for the correct answer of 19,228

If the answer is incorrect, award **ONE** mark for the formal method of long multiplication with no more than **ONE** arithmetic error, e.g.

•
$$\begin{array}{r} 418 \\ \times \underline{46} \\ 2508 \\ \underline{16720} \\ 18228 \text{ (error)} \end{array}$$

OR

$$\begin{array}{r} \cdot \quad 418 \\ \times \quad 46 \\ \hline 2508 \\ 16620 \text{ (error)} \\ \hline 19128 \end{array}$$

Working must be carried through to reach a final answer for the award of **ONE** mark.

Do not award any marks if the error is in the place value, e.g. the omission of the zero when multiplying by tens:

$$\begin{array}{r} \cdot \quad 418 \\ \times \quad 46 \\ \hline 2508 \\ 1672 \text{ (place value error)} \\ \hline 4180 \end{array}$$

Up to 2m

[2]

Q19. 20

[1]

Q20.

$$17\frac{1}{2}$$

OR

$$\frac{70}{4} \text{ OR } \frac{35}{2}$$

Accept equivalent mixed numbers, fractions or an **exact** decimal equivalent, e.g. 1.75

[1]