

Q1

1a

Find the number of paving slabs needed to cover the length.

$$\begin{aligned} \text{length} &= 3.6 \text{ m} = 360 \text{ cm} \\ 360 \div 60 &= 6 \end{aligned}$$

Find the number of paving slabs needed to cover the width.

$$\begin{aligned} \text{width} &= 3 \text{ m} = 300 \text{ cm} \\ 300 \div 60 &= 5 \end{aligned}$$

Correct method for either length or width [1]

Find the number of paving slabs needed to cover the whole area.

$$\text{Area} = \text{length} \times \text{width} = 6 \times 5$$

[1]

30 paving slabs are needed so yes he bought enough [1]

1b

Identify the correct calculation that needs to be carried out.

Total cost = number of paving slabs \times cost of paving slabs.

$$\text{Total cost} = 32 \times 8.63$$

Ignore the decimal and choose a method to multiply the numbers 32 and 863 together.

$$\begin{array}{r} 863 \\ \times 32 \\ \hline 1726 \\ 25890 \\ \hline 27616 \end{array}$$

Correct method [1]

Correct answer [1]

There are two digits after the decimal point in the question so place two digits after the decimal point in the answer.

$$32 \times 8.63 = 276.16$$

£276.16 [1]

Q2

2

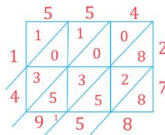
Identify the correct calculation that needs to be carried out.

Total cost = number of plants \times cost of each plant.

$$\text{Total cost} = 27 \times 5.54$$

Ignore the decimal and choose a method to multiply the numbers 27 and 554 together.

Lattice method is shown here.



Correct grid [1]

Correct additions [1]

Correct answer [1]

There are two digits after the decimal point in the question so place two digits after the decimal point in the answer.

$$27 \times 5.54 = 149.58$$

£149.58 [1]

Q3

Identify the correct calculation that needs to be carried out.

Total cost = number of days worked \times cost of each ticket.

$$\text{Total cost} = 18 \times 6.45$$

Ignore the decimal and choose a method to multiply the numbers 18 and 645 together. Column method is shown here.

$$\begin{array}{r} 645 \\ \times 18 \\ \hline 5160 \\ 6450 \\ \hline 11610 \end{array}$$

[1]

There are two digits after the decimal point in the question so place two digits after the decimal point in the answer.

$$18 \times 6.45 = 116.10$$

Find the difference by subtracting the cost of a monthly ticket.

$$116.10 - 98.50$$

Write as a column and subtract the numbers in each column, borrowing if needed.

$$\begin{array}{r} 0.15 \\ 116.10 \\ - 98.50 \\ \hline 17.60 \end{array}$$

Correct method [1]

Correct answer [1]

£17.60 [1]

Q4

4

First find the price at Kirsty's Plants.

To do 2.39×25 you can either use a long multiplication technique such as lattice method or you can multiply 2.39 by 100 and divide this by 4 (as $100 \div 4 = 25$).

$$\text{Kirsty's Plants: } 2.39 \times 100 \div 4 = 239 \div 4$$

Use the bus stop method to divide 239 by 4.

$$\begin{array}{r} 059.75 \\ 4 \overline{) 239.00} \end{array}$$

Any complete method to multiply 2.39 by 25 [1]

Correct calculation (ignoring decimal) [1]

At Kirsty's Plants the plants will cost £59.75.

Find the cost of the 25 plants (1 pack) at Hedge World by adding the 20% VAT to the total price of £52.50.

Find 20% of 52.5.

It is easiest to find 10% first and then multiply it by 2.

$$10\% \text{ of } 52.50 = 52.5 \div 10 = 5.25$$

$$20\% \text{ of } 52.50 = 5.25 \times 2 = 10.50$$

Now we need to add the 20% to the total.

$$52.50 + 10.50 = 63.00$$

$$\text{Hedge World: } \pounds 63$$

[1]

Interpret your results in the context of the question.

The price is £59.75 at Kirsty's Plants and £63 at Hedge World. So Tom should buy from Kirsty's World.

Both prices correct [1]

Conclusion correct [1]

Q5-7

5

You should know the first 5 cube numbers but could use your calculator to check.

$$4^3 = 4 \times 4 \times 4 = 64$$

64 [1]

6

A square number is the result when a positive integer is multiplied by itself.
The first few square numbers are 1, 4, 9, 16, 25, 36, ...

16 [1]

Any square number bigger than 10 is accepted

7

Turn the statements into a calculation.
Be careful with the negatives!

$$-57 + 63.8$$

6.8 °C [1]

Q8-10

8

A prime number is only divisible by 1 and itself

53 [1]

59 also correct

9

Can use a calculator for this question if you need to, as not instructed otherwise
You should however know that a negative divided by a negative, will result in a positive answer

6 [1]

10

A prime number is an integer that has no factors except itself and one

23 or 29 [1]

You only need to write one of these two numbers to get the mark

Q11

11

A prime number is a number that is only divisible by itself and one.
Identify the two prime numbers in the list. It helps to know that they must be odd (the only even prime number is 2).

The two prime numbers are 17 and 41

Either 17 or 41 identified [1]

Subtract 17 from 41 to find the difference.

$$41 - 17 = 24$$

24 [1]