Day 314 **C Tier 10-a-day: Model Solutions**

1 Substitution

Work out the value of 6 + x when x = 11.

6 + 11 = 17

Answer: 17

2 Subtraction

Work out 666 − 471.

666 − 471 = 195

Answer: 195

3 Reading a clock

Write down the time shown on the clock.

The minute hand points to 7, which is 7 × 5 = 35 minutes past, and the hour hand has passed the 12
The time is 12:35

Answer: 12:35

4 Rates

A machine makes 3 bottles each hour.
How many bottles does it make in 3 hours?

3 × 3 = 9

Answer: 9 bottles

5 Rounding money

Round £9.33 to the nearest pound.

Look at the pence: 33 p
less than 50p, so round down

Answer: £9

6 Area of a triangle

The diagram shows a triangle.
Work out the area of the triangle.
The diagram is not drawn accurately.

Area of a triangle = base × height ÷ 2
10 × 3 = 30
30 ÷ 2 = 15

Answer: 15 m^2

7 Tables of values

The table shows some values of x and y.
(a) Write down the value of y when x = 4.
(b) Write down the value of x when y = 26.

(a) Find 4 in the top row; the number underneath is 22
(b) Find 26 in the bottom row; the number above is 5

Answer: (a) 22 (b) 5

8 Perimeter of a square from its area

A square mat has an area of 100 cm^2.
Work out the perimeter of the mat.

Side × side = 100, so the side is 10 cm (because 10 × 10 = 100)
Perimeter = 4 × 10 = 40

Answer: 40 cm

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9 The mode

Here are the marks in a test.
15 5 14 13 13 14 6 14 12
Write down the mode.

The mode is the value that appears most often
14 appears 3 times
Answer: 14

10 Coordinates

Here are three points.
(3, 0), (0, 6), (5, 1)
Which point lies on the y-axis?

A point on the y-axis has x-coordinate 0
Answer: (0, 6)