Day 187 **C Tier 10-a-day: Model Solutions**

1 Missing side from area

A rectangular rug has an area of 36 m^2.
Its width is 3 m.
Work out its length.

Area = length × width
36 = length × 3
length = 36 ÷ 3 = 12
Answer: 12 m

2 Money: change

Amy buys a gift for £7.60.
Amy pays with a £20 note.
How much change does Amy get?

Change = £20 − £7.60
2000p − 760p = £12.40
Answer: £12.40

3 Which expression

Which of these means t divided by 7?

$t + 7$, t^2, $7t$, $\frac{t}{7}$

t ÷ 7 is written $\frac{t}{7}$

Answer: $\frac{t}{7}$

4 Distance from speed and time

A coach travels at 40 km/h for 4 hours.
How far does it travel?

Distance = speed × time
40 × 4 = 160
Answer: 160 km

5 Halves, quarters and thirds

Write down half of 68.

68 ÷ 2 = 34
Answer: 34

6 Shaded area

The diagram shows a rectangle with a smaller rectangle cut out of it.
Work out the area of the shaded part.
The diagram is not drawn accurately.

Big rectangle: 14 × 7 = 98
Small rectangle: 11 × 4 = 44
Shaded area: 98 − 44 = 54
Answer: 54 cm^2

7 Substitution

d = 6 and x = 7
Work out the value of
(a) dx
(b) x − d

(a) 6 × 7 = 42
(b) 7 − 6 = 1
Answer: (a) 42 (b) 1

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8 Sampling

Noah wants to find out how much money people spend on books.
Noah asks only people in a bookshop.
Give a reason why this sample may be biased.

People in a bookshop are more likely to spend a lot on books
Answer: People in a bookshop are more likely to spend a lot on books

9 Sequences

Here are the first four terms of a sequence.
1, 7, 8, 15
Each term is found by adding the two terms before it.
Write down the next two terms.

8 + 15 = 23
15 + 23 = 38
Answer: 23, 38

10 Writing numbers in figures

Write one thousand six hundred and thirty-six in figures.

Write each part: 1000 + 600 + 36
Add the parts together
Answer: 1636