Day 243 **C Tier 10-a-day: Model Solutions**

1 Money

A bar of chocolate costs 30p.
Work out the cost of 8 bars.
Give your answer in pounds.

30p × 8 = 240p
240p = £2.40
Answer: £2.40

2 Sequences

Here are the first four terms of a sequence.
5, 5, 10, 15
Each term is found by adding the two terms before it.
Write down the next two terms.

10 + 15 = 25
15 + 25 = 40
Answer: 25, 40

3 Rates

A café sells 3 coffees each hour.
How many hours does it take to reach 24 coffees?

24 ÷ 3 = 8
Answer: 8 hours

4 Finish time

A swimming session starts at 5:20 pm.
It lasts 45 minutes.
At what time does it end?

Add the minutes: 5:20 pm + 45 minutes = 6:05 pm
Answer: 6:05 pm

5 Substitution

Work out the value of 5b − 2 when b = 4.

5b = 5 × 4 = 20
20 − 2 = 18
Answer: 18

6 Currency conversion

£1 = €1.20
Change €36 into pounds.

36 ÷ 1.20 = 30
Answer: £30

7 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
8 × 5 = 40
40 ÷ 2 = 20
Answer: 20 cm^2

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8 Division in context

Each van holds 30 people.
67 people need a lift.
How many vans are needed?

67 ÷ 30 = 2 remainder 7
The extra people need another van
Answer: 3

9 Stem and leaf diagrams

The stem and leaf diagram shows the ages, in years, of people in a club.
Write down the smallest value.

The first row has the smallest stem and the first leaf is the smallest
20
Answer: 20

10 Forming and solving equations

Gita has x stickers.
A friend gives Gita 13 more stickers.
Gita now has 23 stickers.
(a) Write down an equation using x.
(b) Solve your equation to find how many stickers Gita had at the start.

(a) x + 13 = 23
(b) x = 23 − 13 = 10
Answer: (a) x + 13 = 23 (b) x = 10