Day 164 **C Tier 10-a-day: Model Solutions**

1 Subtraction

Work out 891 − 477.

891 − 477 = 414

Answer: 414

2 Fractions of a group

In a bag of 12 sweets, 6 are red.
What fraction of the sweets are red? Give your answer in its simplest form.

$\frac{6}{12}$

Divide top and bottom by 6: $\frac{1}{2}$

Answer: $\frac{1}{2}$

3 Duration of a journey

A flight takes off at 4:25 pm and lands at 7:15 pm.
How long is the flight?

Count on from 4:25 pm to 7:15 pm:
35 minutes to 5:00 pm
2 hours to 7:00 pm
15 minutes to 7:15 pm
Total: 2 hours 50 minutes

Answer: 2 hours 50 minutes

4 Rounding decimals

Round 6.84 to 1 decimal place.

Look at the second decimal digit, which is 4
4 is less than 5, so round down

Answer: 6.8

5 Writing ratios

In a class there are 5 boys and 14 girls.
Write down the ratio of girls to boys.

The ratio of girls to boys is written 14 : 5

Answer: 14 : 5

6 Angles in a triangle

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

Angles in a triangle add up to 180°
The square corner is 90°
50 + 90 = 140
180 − 140 = 40

Answer: a = 40°

7 Tables of values

The table shows some values of x and y.
(a) Write down the value of y when x = 3.
(b) Write down the value of x when y = 3.

(a) Find 3 in the top row; the number underneath is 7
(b) Find 3 in the bottom row; the number above is 1

Answer: (a) 7 (b) 1

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8 Digit cards

Here are four digit cards:

[4] [7] [8] [5]

Use all four cards to make the smallest possible 4-digit number.

Put the smallest digit in the thousands column, then the next smallest, and so on

Answer: 4578

9 Forming and solving equations

x cakes are shared equally between 6 friends.

Each friend gets 7 cakes.

(a) Write down an equation using x.

(b) Solve your equation to find how many cakes there were.

(a) $\frac{x}{6} = 7$

(b) $x = 7 \times 6 = 42$

Answer: (a) $\frac{x}{6} = 7$ (b) x = 42

10 Probability of not getting a colour

A bag contains 3 green counters, 8 red counters and 8 yellow counters.

One is taken at random.

Write down the probability that it is not red.

Number that are not red: 3 + 8 = 11

Total: 19

Probability = $\frac{11}{19}$

Answer: $\frac{11}{19}$