Day 230 **C Tier 10-a-day: Model Solutions**

1 Subtraction

Work out 886 − 463.

886 − 463 = 423

Answer: 423

2 Probability from a bag

A bag contains 3 blue and 3 yellow counters.
One is taken at random.
Write down the probability that it is blue.

There are 6 in total, and 3 are blue

Probability = $\frac{3}{6} = \frac{1}{2}$

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

3 Sequences

Here is a sequence with one number missing.
5, 7, 9, ?, 13
Work out the missing number.

The terms go up by 2 each time
9 + 2 = 11
Answer: 11

4 Types of triangle

A triangle has sides of length 11 cm, 12 cm and 12 cm.
What type of triangle is it?

Exactly two sides are equal (12 cm)
Answer: isosceles

5 Ordering decimals

Write these numbers in order, starting with the smallest.
0.05, 0.1, 0.11, 0.2

Write each with the same number of decimal places
0.05, 0.10, 0.11, 0.20
Answer: 0.05, 0.1, 0.11, 0.2

6 Reading straight line graphs

The graph shows the cost of hiring a bike.
(a) Work out the cost of hiring the bike for 4 hours.
(b) Omar pays £30 to hire the bike. For how many hours does Omar hire it?

(a) Go up from 4 on the bottom axis to the line, then across: £50
(b) Go across from 30 on the cost axis to the line, then down: 2
Answer: (a) £50 (b) 2

7 Types of angle

Write down the type of each angle.
Choose from: acute, right, obtuse, reflex.
(a) 105°
(b) 210°

(a) 105° is between 90° and 180°, so it is obtuse
(b) 210° is more than 180°, so it is reflex
Answer: (a) obtuse (b) reflex

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8 Venn diagrams

Some students were asked whether they like pizza or pasta.
The Venn diagram shows the results.
How many students are in at least one circle?

Add the numbers inside the circles: 12 + 1 + 5 = 18
Answer: 18

9 Angles between clock hands

The minute hand of a clock turns clockwise from the 11 to the 3.
Through what angle does it turn?

Each number gap on a clock is 360 ÷ 12 = 30°
From 11 to 3 is 4 gaps
4 × 30 = 120
Answer: 120°

10 Forming and solving equations

There are x pencils in each box.
5 boxes hold 40 pencils in total.
(a) Write down an equation using x.
(b) Solve your equation to find how many pencils are in each box.

(a) 5x = 40
(b) x = 40 ÷ 5 = 8
Answer: (a) 5x = 40 (b) x = 8