Day 280 **B Tier 10-a-day**

1 A regular polygon has 24 sides.
(a) Work out the size of one exterior angle.
(b) Work out the size of one interior angle.

2 (a) Change 8.7 cm to mm.
(b) Change 1170 m to km.

3 Factorise fully $20x^2 + 25x$

4 A rectangle is 12 m long and 8 m wide.
It is enlarged by scale factor 2.
(a) Write down the length and width of the enlarged rectangle.
(b) Work out the perimeter of the enlarged rectangle.

5 A stratified sample of 40 students is taken from the 400 students in the table.
Work out how many students should be sampled from Year 7.

Group	Students
Year 7	100
Year 8	100
Year 9	200

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6 The angles in a triangle are x°, (2x + 22)° and (3x − 10)°. (a) Work out the value of x. (b) Work out the size of the largest angle.	
7 Work out the value of this expression. (Calculator) $\frac{6.4 + 4.4}{9.7 \times 9.8}$ Give your answer correct to 3 significant figures.	
8 Priya walks 6 km north and then 8 km east. Work out the straight line distance from the start to the finish.	
9 A bag contains 6 green beads and 5 yellow beads. Leo takes one at random and does not replace it, then takes a second. Work out the probability that the two are different colours.	
10 Solve $x^2 + 6x = 0$	