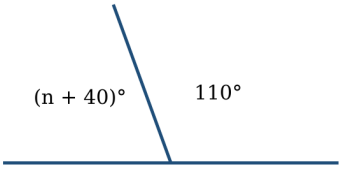
Day 295	B Tier 10-a-day
1 The diagram shows 2 angles on a straight line. Work out the value of n. The diagram is not drawn accurately.  	
2 Write these in order of size. Start with the smallest. 12%, $\frac{1}{4}$, 87.5%, 75%	
3 Triangle ABC has a right angle, a hypotenuse of 11 cm and another side of 5 cm. Triangle XYZ has a right angle, a hypotenuse of 11 cm and another side of 5 cm. Are the two triangles congruent? Give a reason for your answer.	
4 Here are Chloe's and Ravi's times to run a race. Chloe: 48, 47, 41, 36, 50 Ravi: 38, 40, 41, 40, 38 Compare their results using the mean and the range.	
5 Expand and simplify $(x + 4)(x - 2)$	

Day 295	B Tier 10-a-day
6 The length of a rectangle is 20 cm and its width is 12 cm. Both measurements are correct to the nearest cm. Work out the upper bound for the perimeter of the rectangle.	
7 The probability that a machine makes a faulty part is 0.9. Work out how many times you would expect this to happen in 100 parts made.	
8 Sam stands 67 m from the base of a tree on level ground. (Calculator) The angle of elevation of the top of the tree is 48°. Work out the height of the tree. Give your answer correct to 1 decimal place.	
9 A shop sells pens and pencils. All pens cost the same and all pencils cost the same. 3 pens and 2 pencils cost 165p. 4 pens and 2 pencils cost 210p. Work out the cost of one pen and the cost of one pencil.	
10 Work out (a) $\frac{1}{8} + \frac{2}{5}$ (b) $\frac{5}{8} - \frac{3}{10}$ Give each answer in its simplest form.	