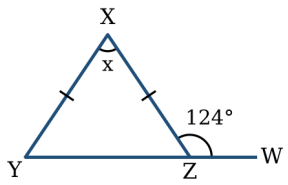
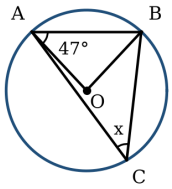
Day 114	A Tier 10-a-day
1 Factorise $x^2 - 11x + 28$	
2 A shop sells coffee in 2 different sizes. Small bag: 500 g for £4.10 Large bag: 1000 g for £7.30 Which bag is the best value for money? You must show your working.	
3 XYZ is an isosceles triangle with XY = XZ. YZW is a straight line. Angle XZW = 124°. Work out the size of angle x. The diagram is not drawn accurately. 	
4 The sum of 4 consecutive whole numbers is 118. Work out the largest of the numbers.	
5 A shop sells 5 different shirts, 3 different pairs of trousers and 3 different hats. How many different outfits, made of one shirt, one pair of trousers and one hat, are possible?	

Day 114 **A Tier 10-a-day**

6 A, B and C are points on a circle with centre O.
Angle OAB = 47°.
(a) Work out angle AOB.
(b) Work out the size of angle x.
Give reasons for your answers.



7 Write $0.6\dot{7}\dot{3}$ as a fraction in its simplest form.

8 The table shows the probabilities of the outcomes of a biased spinner.
(a) Work out the value of x.
(b) The spinner is spun 100 times. Estimate the number of times it lands on white.

Colour	Black	White	Grey	Pink
Probability	0.3	x	2x	0.4

9 Amy invests £2500 in a savings account. (Calculator)
The account pays compound interest at a fixed rate each year.
After 2 years there is £2809 in the account.
Work out the annual rate of interest.

10 A cyclist travels 520 metres in 18.5 seconds.
The distance is correct to the nearest 10 metres and the time to the nearest 0.1 second.
(a) Work out the upper bound and the lower bound of the speed in m/s.
(b) Write the speed to a suitable degree of accuracy. Give a reason for your answer.