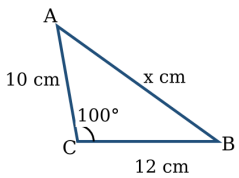
Day 128	IGCSE 10-a-day
1 Solve $4x^2 - 2 = -7x$	
2 The curve $y = x^3 + 6x^2 + 5x + 1$ has gradient -4 at two points. Find the x coordinates of these points.	
3 Solve $\frac{x-4}{3} + \frac{x+2}{6} = -3$	
4 Work out $(5.12 \times 10^0) \div (1.6 \times 10^8)$. Give your answer in standard form.	
5 The diagram shows triangle ABC. (Calculator) (a) Work out the length of AB, marked x, to 1 decimal place. (b) Work out the area of triangle ABC to 3 significant figures. The diagram is not drawn accurately. 	

Day 128	IGCSE 10-a-day
6 A town uses 7.3×10^4 litres of water each day. A reservoir holds 7.2×10^6 litres. For how many days would the reservoir supply the town? Give your answer in standard form to 3 significant figures. (Calculator)	
7 A particle moves in a straight line. After t seconds, its displacement from a fixed point O is s metres, where $s = -t^3 + 15t^2 + 6t$ for $t \geq 0$ Find the greatest speed of the particle, and the value of t at which it occurs.	
8 A and B are two events. P(A) = 0.2, P(B) = 0.5 and P(A or B) = 0.6 (a) Work out P(A and B). (b) Are A and B independent? You must show your working.	
9 A curve has equation $y = x^3 - 4x^2 + 7x + 8$. The tangent to the curve at the point A, where x = 0, meets the curve again at the point B. Find the coordinates of B.	
10 Given that $x > 0$, solve $x^{-\frac{1}{4}} = \frac{1}{3}$	