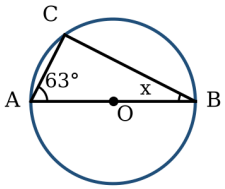
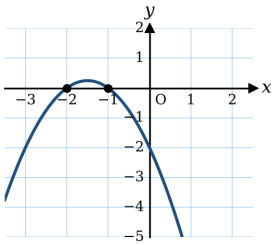
Day 355	A Tier 10-a-day
1 XY is a diameter of the circle. Angle YXZ = 63°. Work out the size of angle x. Give a reason for each step of your working.  	
2 The number of members of a club changes from 400 to 640. Work out the percentage increase.	
3 By rounding each number to 1 significant figure, estimate the value of $\frac{72.0 \times 30}{0.48}$	
4 A triangle has sides of length 10 m, 26 m and 24 m. Is the triangle right-angled? You must show your working.	
5 Here are the first five terms of a quadratic sequence. 9, 19, 35, 57, 85 (a) Find an expression for the nth term. (b) Work out the 8th term.	

Day 355	A Tier 10-a-day
6 $A = 2^2 \times 5^2 \times 7^2$ $B = 5^2 \times 7^4$ Find the highest common factor (HCF) and the lowest common multiple (LCM) of A and B. Give your answers as products of prime factors.	
7 Zac and Owen each invest £2500 for 2 years. (Calculator) Zac's account pays 2% simple interest per year. Owen's account pays 2% compound interest per year. Work out how much more interest Owen earns than Zac.	
8 The diagram shows the graph of $y = -x^2 + bx + c$. Find the value of b and the value of c. 	
9 Solve $\frac{3}{(x+5)} + \frac{4}{(x-5)} = 1$	
10 y is inversely proportional to x. When x = 25, y = 10. (a) Find a formula for y in terms of x. (b) Work out the positive value of x when y = 25.	