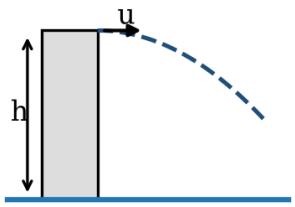
Day 333	A Level Maths: C Tier 10-a-day
1 Write down the exact value of sin 330°.	
2 Solve $x^2 - 10x - 1 = 0$, giving your answers in the form $p \pm \sqrt{q}$.	
3 Here are 6 values: 17, 20, 18, 4, 4, 16 Find the mean and the standard deviation, to 3 s.f.	
4 £5000 invested at 4% compound interest per year. After how many whole years will it first exceed £15000?	
5 A ball is thrown horizontally at 13 m s^{-1} from the top of a vertical cliff of height 19.6 m above the sea. Take g = 9.8 m s^{-2}. Find (a) the time taken to reach the sea, (b) the horizontal distance of the landing point from the cliff. 	

Day 333	A Level Maths: C Tier 10-a-day
6 Solve $\|x - 1\| > 1$.	
7 The table shows grouped data. Class: $20 \leq x < 30$; $30 \leq x < 40$; $40 \leq x < 50$; $50 \leq x < 60$ Frequency: 11, 2, 9, 8 Estimate the mean, to 3 s.f.	
8 Find the set of values of x satisfying both $2x - 4 > 6$ and $x^2 - 6x < 0$.	
9 The side x cm of a cube increases at 0.25 cm/s. Find the rate of increase of the volume when $x = 4$.	
10 A block of mass 10 kg is pulled along rough horizontal ground by a horizontal force of 44.5 N. The coefficient of friction is 0.25. Take $g = 9.8$ m s^{-2}. Find the acceleration.	