Day 318	A Level Maths: C Tier 10-a-day
1 Solve $-5x + 1 > -4$.	
2 A cyclist travelling at 25 m s^{-1} brakes uniformly and comes to rest after travelling 100 m. (a) Find the deceleration. (b) Find the time taken to stop.	
3 Solve $\log_3 x = 4$.	
4 The point P(−4, 3) lies on the curve y = f(x). Write down the coordinates of the image of P on (a) y = f(2x) (b) y = f(x − 4)	
5 A particle moving in a straight line with constant acceleration 3 m s^{-2} travels 25.5 m in 3 s. Find its initial speed.	

Day 318	A Level Maths: C Tier 10-a-day
6 Find the remainder when $2x^3 - 3x^2 + 3x - 6$ is divided by $(3x - 1)$.	
7 A curve has parametric equations $x = 1t$, $y = 4t^2 + 1$. Find the gradient at the point where $t = 3$.	
8 $X \sim B(60, p)$ and $E(X) = 6$. Find p and Var(X).	
9 The vector $p = 12\mathbf{i} + 5\mathbf{j}$. Find (a) $\lvert p \rvert$, (b) the angle p makes with the positive x-axis, measured anticlockwise (1 d.p.).	
10 $X \sim B(12, 0.2)$. Find $P(X \leq 2)$, giving your answer to 3 s.f.	