Day 54	A Tier 10-a-day
1 Solve $\frac{4x + 1}{3} = \frac{5x + 3}{4}$	
2 (a) A coach leaves Leeds at 4:55 pm. The journey takes 3 hours 28 minutes. Work out the time it ends. (b) Change 1.1 hours into hours and minutes.	
3 The area of a circle is 121π cm^2. (a) Work out the radius of the circle. (b) Work out the circumference. Give your answer in terms of π.	
4 Simplify fully (a) $\frac{9x^2y^5}{4x^5y^3}$ (b) $(3x^3y^3)^3$	
5 M is the midpoint of AB. A is the point $(-3, 5)$ and M is the point $(4, 6)$. Work out the coordinates of B.	

Day 54	A Tier 10-a-day
6 Femi and Maya share some money in the ratio 5 : 6. Femi gets £50. How much does Maya get?	
7 A colony has 9,500 and grows by 12% per day. (Calculator) Work out the number of bacteria after 4 days. Give your answer to the nearest whole number.	
8 A rectangle has width x cm and length (x + 6) cm. The area of the rectangle is 27 cm^2. (a) Show that $x^2 + 6x - 27 = 0$ (b) Work out the value of x.	
9 A bag contains 5 red and 3 blue counters. Two counters are taken at random without replacement. Work out the probability that the two counters are the same colour.	
10 Work out the size of angle x. (Calculator) Give your answer to 1 decimal place. The diagram is not drawn accurately. 	