Day 162	B Tier 10-a-day
1 The price of a laptop is £250. The price is first increased by 40%, then the new price is increased by 20%. (a) Work out the final price. (b) Work out the overall percentage increase in the price.	
2 The ratio of adults to children among the people on a bus is 1 : 2. There are 4 adults. How many children are there?	
3 Does the point (5, 6) lie on the line $y = 2x - 5$? You must show your working.	
4 A spinner has coloured sections. It is spun 150 times and lands on blue 120 times. What is the relative frequency of blue? Give your answer as a decimal.	
5 A kite is flown on a string 28 m long. (Calculator) The kite is directly above a point 25 m from the person flying it, on level ground. Work out the height of the kite above the ground, ignoring the height of the person. Give your answer correct to 1 decimal place.	

Day 162 **B Tier 10-a-day**

6 $A = 2^3 \times 3^3 \times 7$
$B = 2 \times 5 \times 7^2$
Write down, as a product of prime factors,
(a) the HCF of A and B
(b) the LCM of A and B

7 Make u the subject of the formula
$v = u + at$

8 Work out
(a) $\frac{7}{9} \times \frac{1}{4}$
(b) $\frac{1}{3} \div \frac{2}{3}$
Give each answer in its simplest form.

9 The table shows some information about 70 people at a meeting.
A person is chosen at random.
Find the probability that the person chose "Coffee".

	Tea	Coffee	Total
Male	24		49
Female		7	
Total			70

10 A road is 1.25 km long.
It is drawn on a map with scale 1 : 25 000.
Work out the length of the road on the map, in cm.