Day 300	B Tier 10-a-day
1 Write each answer as a single power of 7. (a) $(7^5)^2$ (b) $7^9 \times 7^2 \div 7^3$	
2 (a) Convert 3.5 km to m. (b) Convert 3 000 000 cm^3 to m^3.	
3 Work out (a) 4.4 × 0.3 (b) 0.21 × 3	
4 A rectangle is 12 m long and 8 m wide. It is enlarged by scale factor 1.5. (a) Write down the length and width of the enlarged rectangle. (b) Work out the perimeter of the enlarged rectangle.	
5 f(x) = 7x + 6 (a) Work out f(6) (b) Solve f(x) = 62	

Day 300	B Tier 10-a-day
6 In a test, the mean mark of 20 boys is 60. The mean mark of 5 girls is 50. Work out the mean mark of all 25 students.	
7 Solve $\frac{4x}{5} + 4 = 36$	
8 A is the point $(-3, 1)$ and B is the point (13, 13). (a) Work out the coordinates of the midpoint of AB. (b) Work out the length of AB.	
9 In a bag of counters, the ratio of black to blue is 3 : 4. The ratio of blue to red is 1 : 4. Write down the ratio black : blue : red.	
10 Solve the simultaneous equations $x - 2y = -17$ $4x + y = -5$	