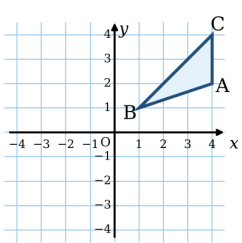
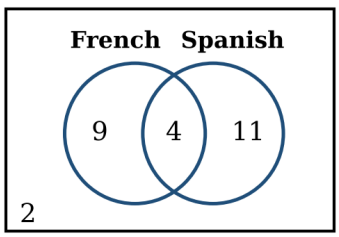
Day 310	B Tier 10-a-day
1 A pot contains 6 black marbles, 7 white marbles and 4 blue marbles. One is taken at random. Find the probability that it is blue.	
2 PQRS is a rhombus. Angle SPQ = 78°. (a) Write down the size of angle QRS. (b) Work out the size of angle PQR.	
3 (a) Write down all the factors of 72. (b) Write down all the multiples of 5 between 26 and 41.	
4 A straight line has equation $y = -3x + 1$ (a) Write down the gradient of the line. (b) Write down the equation of a line that is parallel to this line and passes through the point (0, 4).	
5 The diagram shows triangle ABC on a grid. (a) Write down the coordinates of the image of C after a reflection in the line y = 1. (b) Write down the coordinates of the image of B after a reflection in the x-axis. 	

Day 310	B Tier 10-a-day
6 Pasta is sold in two sizes. Small: 250 g for £1.05 Large: 500 g for £1.80 Which size is better value for money? You must show your working.	
7 Two buses leave a bus station at 11:45. One bus leaves every 12 minutes. The other bus leaves every 14 minutes. At what time do both buses next leave together?	
8 Here is an iteration formula. $x_{n+1} = 3 + \frac{20}{x_n}$ $x_0 = 5$ (a) Work out x_1 (b) Work out x_2. Give your answer correct to 3 decimal places. (Calculator)	
9 The Venn diagram shows information about 26 pupils in Year 9. One of them is chosen at random. Find the probability that the person chose French or Spanish or both. 	
10 A cone has base radius 2 cm and vertical height 15 cm. (Calculator) Volume of a cone = $\frac{1}{3}\pi r^2 h$ Work out the volume of the cone. Give your answer correct to 1 decimal place.	