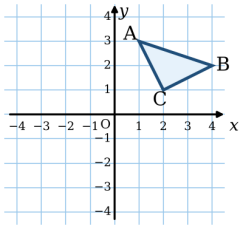
Day 110	B Tier 10-a-day
1 Write the ratio 12 : 2 : 4 in its simplest form.	
2 Factorise $x^2 - x - 30$	
3 A 4-digit code is made using only the digits 1, 2, 3, 4, 5, 6. A digit can be used more than once. How many different codes are possible?	
4 A river is 0.75 km long. It is drawn on a map with scale 1 : 25 000. Work out the length of the river on the map, in cm.	
5 (a) Write $\frac{11}{40}$ as a decimal. (b) Write $\frac{5}{6}$ as a recurring decimal. For part (b), write down the first 8 decimal places and say which digits repeat.	

Day 110	B Tier 10-a-day
6 The diagram shows triangle ABC on a grid. (a) Write down the coordinates of the image of C after a reflection in the y-axis. (b) Write down the coordinates of the image of A after a reflection in the line y = 2.  	
7 Two buses leave a bus station at 11:45. One bus leaves every 9 minutes. The other bus leaves every 15 minutes. At what time do both buses next leave together?	
8 Solve the simultaneous equations $x + 3y = 10$ $5x - 3y = 14$	
9 In a bag of counters, the ratio of red to white is 2 : 5. The ratio of white to green is 1 : 8. Write down the ratio red : white : green.	
10 Solve $x^2 - 2x - 8 = 0$	