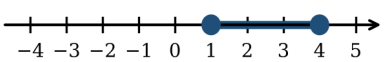
Day 92	B Tier 10-a-day
1 Write the ratio 48 : 12 : 6 in its simplest form.	
2 A rectangular lawn measures 11 m by 16 m. A rectangle measuring 4 m by 3 m is cut out. Work out the area that is left.	
3 A cyclist travels at a constant speed of 24 km/h for 10 minutes. How far does it travel?	
4 A railway line is 50 m long. It is drawn on a map with scale 1 : 1000. Work out the length of the railway line on the map, in cm.	
5 (a) Write down the inequality shown on the number line. (b) Write down all the integers that satisfy the inequality.  	

Day 92	B Tier 10-a-day
6 A coach travels 144 miles in 3 hours. Work out its average speed in miles per hour.	
7 A spacecraft travels at 3×10^7 km per hour. It travels for 4.7×10^2 hours at this speed. Work out how far it travels. Give your answer in standard form.	
8 $\mathbf{a} = \begin{pmatrix} 1 \\ -2 \end{pmatrix}$ $\mathbf{b} = \begin{pmatrix} -6 \\ 0 \end{pmatrix}$ Work out (a) $\mathbf{a} + 2\mathbf{b}$ (b) $\mathbf{a} + 3\mathbf{b}$	
9 A cafe sells cakes and drinks. All cakes cost the same and all drinks cost the same. 2 cakes and 2 drinks cost £10. 3 cakes and 2 drinks cost £14. Work out the cost of one cake and the cost of one drink.	
10 In a sale, the price of a sofa is reduced by 50%. (Calculator) Two weeks later it is reduced by a further 10% of the new price. The final price is £33.75. Work out the original price of the sofa.	