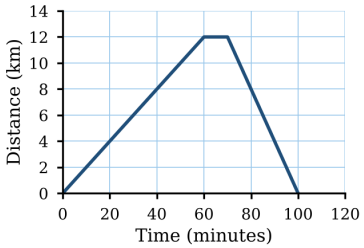
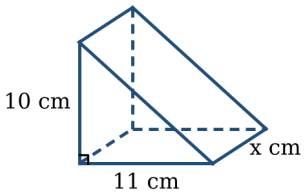
Day 30	A Tier 10-a-day
1 (a) Write 120 and 108 as products of prime factors. (b) Find the highest common factor (HCF) and the lowest common multiple (LCM) of 120 and 108.	
2 A straight line has equation $5x - 2y = 10$ (a) Find the gradient of the line. (b) Find the coordinates of the point where the line crosses the x-axis.	
3 Hugo's weekly pay is increased by 12%. Her new weekly pay is £28. Work out her weekly pay before the increase.	
4 The number of visitors to a museum was 400 and is now 500. Work out the percentage increase.	
5 A cyclist makes a journey. The distance-time graph shows the journey. (a) For how many minutes did the cyclist stop? (b) Work out the speed during the first part of the journey. Give your answer in km/h. 	

Day 30	A Tier 10-a-day
6 L = 3.15 has been truncated to 2 decimal places. Write down the error interval for L.	
7 A solid hemisphere has radius 3 cm. Work out its volume. Give your answer in terms of π.	
8 Solve $\frac{3}{(x+3)} + \frac{3}{(x-5)} = 1$	
9 The diagram shows a prism with a right-angled triangle as its cross-section. The volume of the prism is 605 cm^3. Work out the value of x. The diagram is not drawn accurately. 	
10 A rectangle has width x cm and length (x + 1) cm. The area of the rectangle is 72 cm^2. (a) Show that $x^2 + 1x - 72 = 0$ (b) Work out the value of x.	