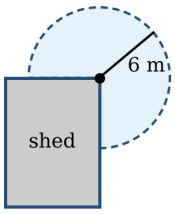
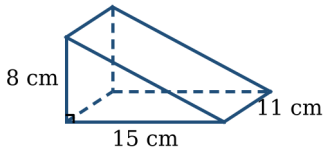
Day 169	A Tier 10-a-day
1 A new car is worth £25000. (Calculator) Its value falls by 20% each year. Work out its value after 3 years.	
2 Expand and simplify $(3x - 7)(2x + 7)$	
3 (a) Change 1.5 m^2 to cm^2. (b) Change 25,000 cm^2 to m^2.	
4 A dog is tied by a rope of length 6 m to the corner of a rectangular shed. The shed measures 8 m by 11 m. The dog can graze on any grass it can reach outside the shed. Work out the area it can graze. Give your answer in terms of π. The diagram is not drawn accurately. 	
5 The mean of the five numbers 14, 16, x, 11, 6 is 11. Work out the value of x.	

Day 169	A Tier 10-a-day
6 A plank is 15.7 m long and a pipe is 9.5 m long. Each length is correct to the nearest 0.1 m. Work out the lower bound for the difference in their lengths.	
7 The diagram shows a triangular prism. The cross-section is a right-angled triangle. Work out the total surface area of the prism. The diagram is not drawn accurately. 	
8 A rectangle has width x cm and length (x + 6) cm. The area of the rectangle is 40 cm^2. (a) Show that $x^2 + 6x - 40 = 0$ (b) Work out the value of x.	
9 The price of a games console is decreased by 30%. The new price is then increased by 20%. Work out the overall percentage change.	
10 Ship A sails 19 miles from a port on a bearing of 325°. Ship B sails 20 miles from the same port on a bearing of 080°. (Calculator) Work out the distance between the two ships. Give your answer to 3 significant figures.	