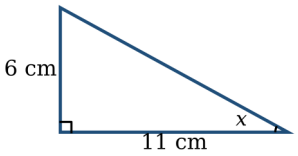
Day 275	B Tier 10-a-day
1 f(x) = 6x + 9 (a) Work out f(6) (b) Solve f(x) = −15	
2 Work out (a) 5^{-3} (b) $5^0 + \sqrt{49}$	
3 n is an integer. Write down all the values of n for which $-1 < n \leq 3$	
4 Sam tests a drawing pin landing point up. In 250 trials it happens 100 times. Estimate how many times it will happen in 1000 trials.	
5 Work out the value of this expression. (Calculator) $\sqrt{6^2 + 6^2}$ Give your answer correct to 3 significant figures.	

Day 275	B Tier 10-a-day
6 P is directly proportional to n. When n = 2, P = 12. Find the value of P when n = 20.	
7 Calculate the size of angle x. (Calculator) Give your answer correct to 1 decimal place. The diagram is not drawn accurately.  	
8 Simplify fully $\frac{x^2 - 4x}{x}$	
9 A paddling pool is a cuboid 10 cm long, 20 cm wide and 40 cm deep. (a) Work out the volume of the paddling pool. (b) How many litres of water does it hold when full? 1 litre = 1000 cm^3	
10 In a sale, the price of a sofa is reduced by 50%. (Calculator) Two weeks later it is reduced by a further 50% of the new price. The final price is £62.50. Work out the original price of the sofa.	