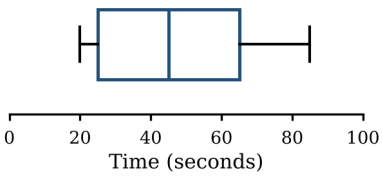
Day 68	A Tier 10-a-day
1 £1 = €1.3. (a) Change £400 to euros. (b) Change €234 to pounds.	
2 A taxi company charges £2 plus £4 for each mile. (a) Write a formula for the total cost, £C, after m miles. (b) Aisha pays £26 in total. Work out the number of miles.	
3 A shop sells 6 different shirts, 4 different pairs of trousers and 2 different hats. How many different outfits, made of one shirt, one pair of trousers and one hat, are possible?	
4 Without using a calculator, work out the exact value of $5 \sin 30° + 5 \sin 45°$ Give your answer in its simplest form.	
5 The box plot shows the times taken, in seconds, by the students in Class A to run 100 m. (a) Write down the median and the interquartile range. For Class B the median is 60 and the interquartile range is 30. (b) Compare the distributions of the two classes. 	

Day 68	A Tier 10-a-day
6 Expand and simplify $(6 + \sqrt{7})(6 - \sqrt{7})$	
7 A cone has base radius 6 cm and perpendicular height 8 cm. Work out the curved surface area of the cone. Give your answer in terms of π.	
8 The point P(−5, −12) lies on a circle with centre O(0, 0). (a) Work out the equation of the circle, in the form $x^2 + y^2 = r^2$. (b) Find the equation of the tangent to the circle at P.	
9 A is the point (−1, 6) and B is the point (7, 0). Find the equation of the perpendicular bisector of AB.	
10 The diagram shows the cross-section of a metal pipe. The outer radius is 9 cm and the inner radius is 6 cm. The pipe is 50 cm long. Work out the volume of metal used. Give your answer to 3 significant figures. (Calculator) 	