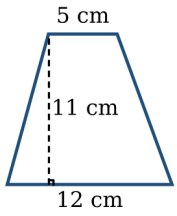
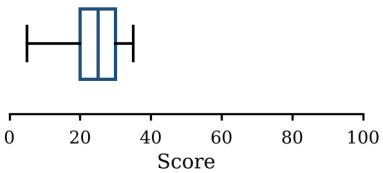
Day 363	A Tier 10-a-day
1 £1 = €1.6. (a) Change £80 to euros. (b) Change €256 to pounds.	
2 A rectangle has width x cm and length (x + 5) cm. The area of the rectangle is 84 cm^2. (a) Show that $x^2 + 5x - 84 = 0$ (b) Work out the value of x.	
3 By rounding each number to 1 significant figure, estimate the value of $\frac{19.7 + 9.7}{0.64}$	
4 The diagram shows a trapezium. Work out the area of the trapezium. The diagram is not drawn accurately. 	
5 A tank is in the shape of a cuboid measuring 50 cm by 120 cm by 150 cm. Water flows in at 20 litres per minute until the tank is full. Work out how long this takes. Give your answer in minutes.	

Day 363	A Tier 10-a-day
6 Expand and simplify $(x + 5)(3x - 5)(x - 4)$	
7 A runner travels 350 m in 10.7 s. The distance is measured to the nearest 10 metres and the time to the nearest 0.1 second. (Calculator) Work out the upper bound for the runner's speed in m/s. Give your answer correct to 3 significant figures.	
8 Without using a calculator, work out the exact value of $\tan 60° \times \cos 30°$ Give your answer in its simplest form.	
9 The box plot shows the scores of the students in Class A in a test. (a) Write down the median and the interquartile range. For Class B the median is 30 and the interquartile range is 5. (b) Compare the distributions of the two classes.  	
10 A cyclist travels 540 metres in 4.6 seconds. The distance is correct to the nearest 10 metres and the time to the nearest 0.1 second. (a) Work out the upper bound and the lower bound of the speed in m/s. (b) Write the speed to a suitable degree of accuracy. Give a reason for your answer.	