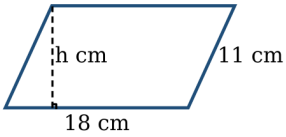
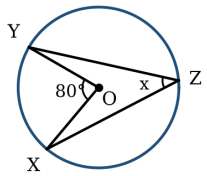
Day 223	A Tier 10-a-day
1 The area of this parallelogram is 180 cm^2. Work out the value of h. The diagram is not drawn accurately.  	
2 The population of a village was 100 and is now 88. Work out the percentage decrease.	
3 A straight line has equation $6x - 2y = 18$ (a) Find the gradient of the line. (b) Find the coordinates of the point where the line crosses the x-axis.	
4 Zara reads $\frac{7}{10}$ of a book and has now read 105 pages. How many pages does the whole book have?	
5 y is directly proportional to the square root of x. When x = 9, y = 24. (a) Find a formula for y in terms of x. (b) Work out the positive value of x when y = 64.	

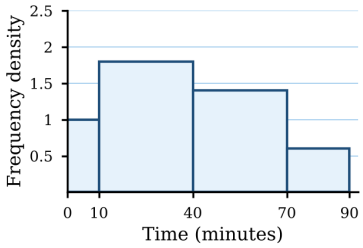
Day 223 **A Tier 10-a-day**

6 X, Y and Z are points on a circle with centre O.
Angle XOY = 80°.
Work out the size of angle x.
Give a reason for your answer.



7 f(x) = 4x + 3
$g(x) = x^2 - 2$
Solve gf(x) = 7

8 The histogram shows information about the time of some items.
(a) Work out the number of items with a time in the class 0 to 10 minutes.
(b) Work out an estimate for the number with a time greater than 25 minutes.



9 Solve $\frac{6}{(x+5)} + \frac{4}{(x+1)} = 1$

10 A coach travels for 1 hour 30 minutes at 35 km/h,
then for 1 hour at 65 km/h.
Work out the average speed for the whole journey.