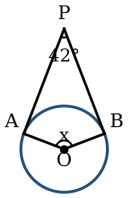
Day 123	A Tier 10-a-day
1 Solve $\frac{x-1}{2} - \frac{x+3}{5} = -2$	
2 Write these numbers in order of size, starting with the smallest. $\frac{3}{20}$ 0.59 $\frac{1}{20}$ 22%	
3 A car travels at 72 km/h. Work out this speed in metres per second.	
4 Isla buys a phone for £200 and sells it for £224. Work out Isla's percentage profit.	
5 Solve $2x^2 + 5x = -2$	

Day 123 **A Tier 10-a-day**

6 PA and PB are tangents to a circle with centre O.
Angle APB = 42°.
Work out the size of angle x (angle AOB).
Give a reason for each step of your working.



7 Solve $x^2 - 4x - 7 = 0$
Give your solutions correct to 2 decimal places.
(Calculator)

8 The table gives information about 121 measurements.
A histogram is drawn using this information.
(a) Work out the missing frequency.
(b) Work out the height of the bar for the class $10 < l \leq 40$.

Length, l (mm)	Frequency
$10 < l \leq 40$	78
$40 < l \leq 55$	?
$55 < l \leq 65$	16
$65 < l \leq 75$	18

9 Boat P sails 18 km from a harbour on a bearing of 205°.
Boat Q sails 17 km from the same harbour on a bearing of 170°. (Calculator)
Work out the distance between the two boats.
Give your answer to 3 significant figures.

10 A bag contains 3 red counters and 4 blue counters.
Three counters are taken at random without replacement.
Work out the probability that all three counters are red.