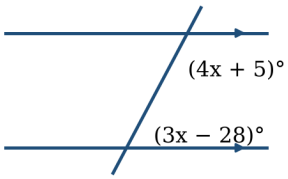
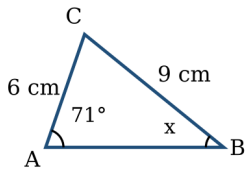
Day 235	A Tier 10-a-day
1 (a) Write 8840.2 correct to 2 significant figures. (b) Write 89.538 correct to 1 decimal place.	
2 Solve $6(x + 1) = 3(x + 7) - 9$	
3 The diagram shows two parallel lines crossed by a straight line. (a) Work out the value of x. (b) Work out the size of the angle marked $(4x + 5)°$. The diagram is not drawn accurately. 	
4 n is the smallest positive integer such that $90 \times n$ is a square number. Find the value of n.	
5 A rectangle has width x cm and length $(x + 5)$ cm. The area of the rectangle is 104 cm^2. (a) Show that $x^2 + 5x - 104 = 0$ (b) Work out the value of x.	

Day 235 **A Tier 10-a-day**

6 The table shows the times, in minutes, taken by 20 people to finish a race.
(a) Write down the class that contains the median.
(b) Work out an estimate for the mean.

Time, t (minutes)	Frequency
$50 < t \leq 60$	2
$60 < t \leq 70$	2
$70 < t \leq 80$	4
$80 < t \leq 90$	4
$90 < t \leq 100$	8

7 Work out the size of angle x. (Calculator)
Give your answer to 1 decimal place.
The diagram is not drawn accurately.



8 A club has 250 members in junior, 250 in intermediate and 175 in senior.
A stratified sample of 27 members is to be taken.
Work out how many members should be chosen from intermediate.

9 A solid is made from a cylinder of radius 3 cm and a hemisphere on top, with the same radius.
The total volume of the solid is 72π cm^3.
Work out the height of the cylinder.

10 Solve the simultaneous equations
$y = x^2 + 7x - 2$
$y = 4x + 8$