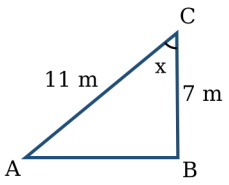
Day 307	A Tier 10-a-day
1 Work out $5\frac{1}{2} + 2\frac{1}{5}$ Give your answer as a mixed number in its simplest form.	
2 The scale of a map is 1 : 20000. Two towns are 15 cm apart on the map. Work out the real distance between the towns in kilometres.	
3 Work out $\sqrt{1.69 \times 10^{-10}}$ Give your answer in standard form.	
4 Make p the subject of q = 6p + 2	
5 Write the recurring decimal $0.\dot{8}\dot{1}$ as a fraction in its simplest form.	

Day 307 **A Tier 10-a-day**

6 The area of triangle ABC is 29.9 m^2.
(Calculator)
Angle x is acute.
Work out the size of angle x. Give your answer to 1 decimal place.
The diagram is not drawn accurately.



7 The graph of y = f(x) has a maximum point at (4, 3).
Write down the coordinates of the turning point of the graph of
(a) y = f(x) + 4
(b) y = f(x − 1)

8 a : b = 5 : 2
b : c = 2 : 5
(a) Work out the ratio a : b : c
(b) a, b and c add up to 60. Work out the value of c.

9 A bag contains 3 black pens and 5 blue pens.
Three pens are taken at random without replacement.
Work out the probability that exactly one of the three pens is blue.

10 A, B, C and D are points on a circle. AC and BD meet at E.
Angle BAC = 42° and angle ACD = 34°.
Work out the size of angle x (angle AEB).
Give reasons for your working.

