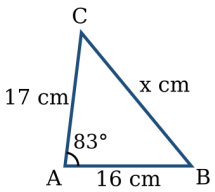
Day 82	A Tier 10-a-day

1 Work out the value of x. (Calculator)
Give your answer to 3 significant figures.
The diagram is not drawn accurately.



2 For two events A and B:
P(A) = 0.75, P(B) = 0.4 and P(A or B) = 0.8.
(a) Work out P(A and B).
(b) Work out the probability that neither A nor B happens.

3 $s = ut + \frac{1}{2}at^2$
Work out the value of s when u = 8, a = 8 and t = 3

4 A triangle has sides of length 28 cm, 20 cm and 21 cm.
Is the triangle right-angled?
You must show your working.

5 Bus A leaves a bus station every 16 minutes.
Bus B leaves the same station every 14 minutes.
Both buses leave together at 7:10 am.
At what time will they next leave together?

Day 82	A Tier 10-a-day
6 (a) Solve $-11 < 5x - 1 \leq 14$ (b) Write down all the integer values of x that satisfy this inequality.	
7 m = 400 is rounded to 1 significant figure. Write down the error interval for m.	
8 A regular pentagon and a regular decagon share the side AB and are on opposite sides of it. The two shapes meet at the point A. Work out the size of the angle at A that is not inside either shape.	
9 y is inversely proportional to x. When x = 2, y = 8. (a) Find a formula for y in terms of x. (b) Work out the value of y when x = 25.	
10 Hassan invests £4,000 in a savings account. (Calculator) Compound interest is paid at a fixed rate each year. After 3 years the investment is worth £6,912. Work out the annual rate of interest.	