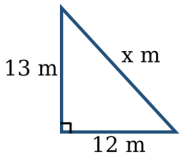
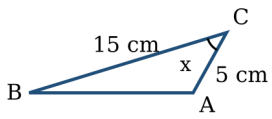
Day 340 **A Tier 10-a-day**

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



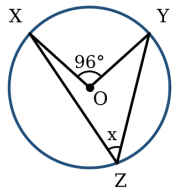
2 Work out $\frac{8.9 + 0.44}{4.8 - 0.11}$ (Calculator)
Give your answer correct to 3 significant figures.

3 The area of triangle ABC is 26 cm^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.



4 A sequence is generated by the rule $u_{n+1} = 4u_n - 3$
The first term, u_1, is 3.
Work out the 5th term, u_5.

5 Ben buys a bike for £230 and sells it making a profit of 30%.
Work out the selling price.

Day 340	A Tier 10-a-day
6 (a) Solve $-14 \leq 5x - 4 \leq 1$ (b) Write down all the integer values of x that satisfy this inequality.	
7 a : b = 5 : 7 b : c = 3 : 5 (a) Work out the ratio a : b : c (b) a, b and c add up to 355. Work out the value of c.	
8 X, Y and Z are points on a circle with centre O. Angle XOY = 96°. Work out the size of angle x. Give a reason for your answer. 	
9 Simplify fully $\frac{x^2 + 7x + 12}{x^2 - 3x - 28}$	
10 y is inversely proportional to x^2. When x = 4, y = 7. (a) Find a formula for y in terms of x. (b) Work out the value of y when x = 8.	