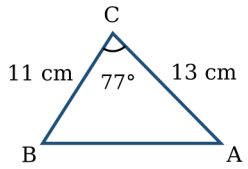
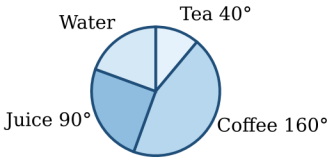
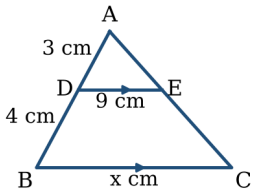
Day 290	A Tier 10-a-day
1 Work out the value of (a) $16^{\frac{1}{4}}$ (b) $(\frac{2}{3})^{-2}$	
2 Work out the area of triangle ABC. (Calculator) Give your answer to 3 significant figures. The diagram is not drawn accurately. 	
3 The pie chart shows how some students chose a drink. 9 students chose juice. (a) Work out the angle for water. (b) How many students chose water? 	
4 C is the point $(1, -6)$ and D is the point $(8, 18)$. (a) Find the midpoint of CD. (b) Work out the length of CD. Give your answer as a whole number.	
5 A scientist wants to estimate the number of frogs in a pond. She catches 80 frogs, marks each one and returns them. Later she catches a second sample of 60 frogs. 8 of these are marked. Work out an estimate for the total number of frogs in a pond.	

Day 290 **A Tier 10-a-day**

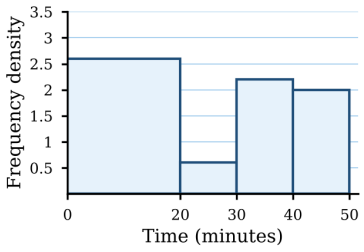
6 m = 930 is rounded to 2 significant figures.
Write down the error interval for m.

7 In triangle ABC, DE is parallel to BC.
D is on AB and E is on AC.
Work out the value of x.
The diagram is not drawn accurately.



8 Solve $x^2 + 5x - 14 \geq 0$

9 The histogram shows information about the time of some items.
(a) Work out the number of items with a time in the class 20 to 30 minutes.
(b) Work out an estimate for the number with a time greater than 35 minutes.



10 Factorise $15x^2 - 11x + 2$