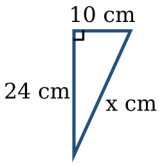
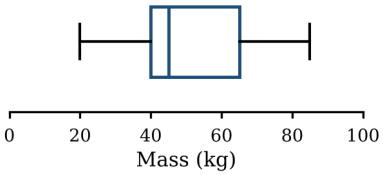
Day 130 **A Tier 10-a-day**

1 Work out the length of x.
The diagram is not drawn accurately.



2 The box plot shows the masses, in kg, of the parcels in delivery A.
(a) Write down the median and the interquartile range.
For delivery B the median is 30 and the interquartile range is 20.
(b) Compare the distributions of the two deliveries.



3 Solve $5x + 5 \leq 3x + 13$

4 By rounding each number to 1 significant figure, estimate the value of

$$\frac{39.0 \times 96}{0.52}$$

5 A pizza slice is a sector of a circle has radius 18 cm and an arc length of 15π cm.
Work out the angle at the centre of the sector.

Day 130	A Tier 10-a-day
6 There are 200 passengers on a plane. 45% of the passengers are children. 30% of the children are under 5 years old. How many passengers are children under 5?	
7 A scientist wants to estimate the number of frogs in a pond. She catches 100 frogs, marks each one and returns them. Later she catches a second sample of 30 frogs. 10 of these are marked. Work out an estimate for the total number of frogs in a pond.	
8 Rationalise the denominator of $\frac{87}{6+\sqrt{7}}$ Give your answer in the form $a + b\sqrt{c}$ where a and b are integers.	
9 The graph of $y = f(x)$ has a minimum point at $(3, -2)$. Write down the coordinates of the turning point of the graph of (a) $y = 2f(x)$ (b) $y = f(x) - 5$	
10 The histogram shows information about the age of some items. (a) Work out the number of items with a age in the class 30 to 50 years. (b) Work out an estimate for the number with a age greater than 40 years. 