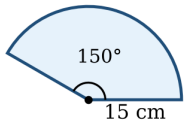
Day 220 **A Tier 10-a-day**

1 The diagram shows a sector of a circle of radius 15 cm.
Work out the area of the sector.
Give your answer in terms of π.
The diagram is not drawn accurately.

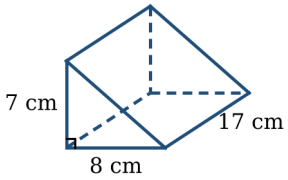


2 y = 3.13 has been truncated to 2 decimal places.
Write down the error interval for y.

3 A café offers 4 starters, 3 main courses and 5 desserts.
A meal is one starter, one main course and one dessert.
(a) How many different meals are possible?
(b) Hana picks her meal at random. Write down the probability that she picks her favourite meal.

4 Solve $x^2 - 7x - 4 = 0$
Give your solutions correct to 2 decimal places.
(Calculator)

5 The diagram shows a prism.
The cross-section of the prism is a right-angled triangle.
Work out the volume of the prism.
The diagram is not drawn accurately.



Day 220 **A Tier 10-a-day**

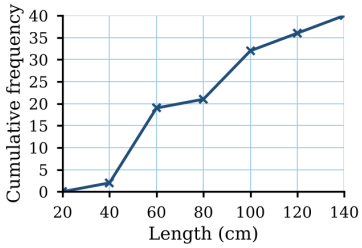
6 Work out $(1.5 \times 10^{-6})^3$
Give your answer in standard form.

7 $f(x) = \frac{2}{x} - 8$

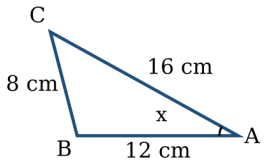
(a) Find $f^{-1}(x)$

(b) Work out $f^{-1}(7)$

8 The cumulative frequency graph shows information about the length of 40 leaves.
Use the graph to find an estimate for
(a) the median,
(b) the number of leaves with a length greater than 80 cm.



9 Work out the size of angle x. (Calculator)
Give your answer to 1 decimal place.
The diagram is not drawn accurately.



10 Write as a single fraction in its simplest form
$\frac{x+2}{7} + \frac{x-3}{2}$