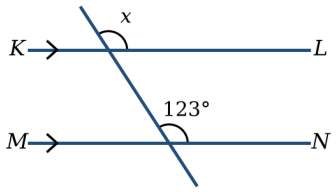
Day 178 **B Tier 10-a-day**

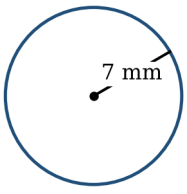
1 Here is a number machine.
Input → × 4 → − 4 → Output
(a) The input is 6. Work out the output.
(b) The output is 4. Work out the input.

2 In the diagram, KL is parallel to MN.
(a) Work out the size of angle x.
(b) Give a reason for your answer.
The diagram is not drawn accurately.



3 Work out 284 × 30

4 The diagram shows a circle with radius 7 mm.
(Calculator)
Work out the circumference of the circle.
Give your answer correct to 1 decimal place.
The diagram is not drawn accurately.



5 Work out
(a) 2^{-2}
(b) $2^0 + \sqrt{64}$

Day 178 **B Tier 10-a-day**

6 (a) Solve $-4 \leq 2x + 4 < 4$
(b) Write down the integer values of x that satisfy this inequality.

7 The table shows the masses of some parcels.
(a) Write down the modal class.
(b) Work out an estimate for the mean.

Mass, m (kg)	Frequency
$20 < m \leq 25$	8
$25 < m \leq 30$	5
$30 < m \leq 35$	4
$35 < m \leq 40$	3

8 The length of a pencil is 19.7 cm, correct to 1 decimal place.
Write down the error interval for the length.
Use the letter L.

9 A coach travels at 40 km/h for 1.5 hours and then at 36 km/h for 1.5 hours.
Work out its average speed for the whole journey.

10 The cumulative frequency graph shows the times taken by 40 students to complete a puzzle.
(a) Use the graph to estimate the median.
(b) Work out an estimate for the interquartile range.

