Day 244	B Tier 10-a-day

1 Here is a number machine.
Input → − 2 → × 5 → Output
(a) The input is 5. Work out the output.
(b) The output is 45. Work out the input.

2 Jasmine has £240.
They spends $\frac{3}{8}$ of the money on a book.
They then spends $\frac{1}{2}$ of the money left on a drink.
How much money is left?

3 3 apples cost £2.25.
Work out the cost of 11 apples.

4 A water tank is a cuboid 25 cm long, 50 cm wide and 20 cm deep.
(a) Work out the volume of the water tank.
(b) How many litres of water does it hold when full?
1 litre = 1000 cm^3

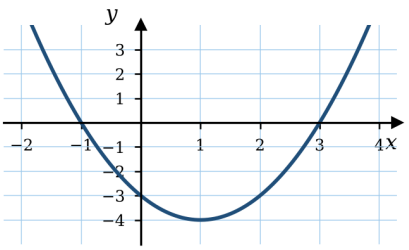
5 The stem and leaf diagram shows 13 values.
(a) Find the median.
(b) Work out the range.

Stem	Leaf
3	3 4 5
4	3 4 7 8
5	2 3 5 6 7 9

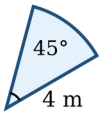
Key: 3 | 3 means 33

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6 The diagram shows the graph of
$y = x^2 - 2x - 3$
(a) Write down the solutions of $x^2 - 2x - 3 = 0$
(b) Write down the coordinates of the minimum point of the graph.



7 The diagram shows a sector of a circle with radius 4 m and angle 45°. (Calculator)
Work out the length of the arc of the sector.
Give your answer correct to 1 decimal place.
The diagram is not drawn accurately.



8 Solve $3(3x - 5) = 12$

9 The area of a circle is 70 cm^2. (Calculator)
Work out the radius of the circle.
Give your answer correct to 1 decimal place.

10 In a sale, the price of a sofa is reduced by 40%. (Calculator)
Two weeks later it is reduced by a further 10% of the new price.
The final price is £270.
Work out the original price of the sofa.