Day 3 **B Tier 10-a-day**

1 (a) Convert 7.5 mm to cm.
(b) Convert 400 mm^2 to cm^2.

2 The ratio of apples to oranges among the pieces of fruit in a bowl is 2 : 7.
There are 28 oranges.
How many apples are there?

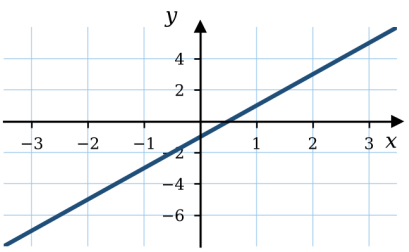
3 Work out
(a) 20% of £640
(b) 30% of 500

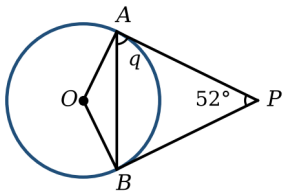
4 The stem and leaf diagram shows 13 values.
(a) Find the median.
(b) Work out the range.

Stem	Leaf
1	0 5 9
2	0 2 4 9
3	2 4 5 6 7 9

Key: 1 | 0 means 10

5 The diagram shows a straight line.
(a) Work out the gradient of the line.
(b) Find the equation of the line.



Day 3	B Tier 10-a-day
6 Ella bought a bike for £200 and sold it for £120. Work out the percentage loss.	
7 Jo says, "The sum of two prime numbers is always even." Give an example to show that Jo is wrong.	
8 PA and PB are tangents to a circle, centre O. Angle APB = 52°. Work out the size of angle PAB, marked q. Give a reason for your answer. The diagram is not drawn accurately. 	
9 A lorry travels at 45 km/h for 1 hour and then at 20 km/h for 1 hour. Work out its average speed for the whole journey.	
10 Work out $(2.9 \times 10^6) + (5 \times 10^6)$ Give your answer in standard form.	