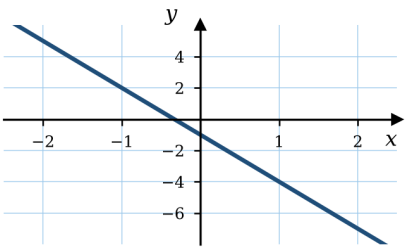
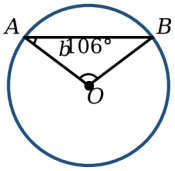
Day 305	B Tier 10-a-day
1 A car uses 50 litres of petrol to travel 500 km. Work out how many kilometres it travels on each litre of petrol.	
2 The angles in a triangle are x°, 3x° and (x + 30)°. (a) Work out the value of x. (b) Work out the size of the largest angle.	
3 x is an integer. Write down the smallest value of x for which x > 2.1	
4 Find the (a) highest common factor (HCF), (b) lowest common multiple (LCM) of 36 and 28.	
5 Sam stands 30 m from the base of a church spire on level ground. (Calculator) The angle of elevation of the top of the church spire is 25°. Work out the height of the church spire. Give your answer correct to 1 decimal place.	

Day 305 **B Tier 10-a-day**

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



7 A and B are points on a circle, centre O.
Angle AOB = 106°.
Work out the size of angle b.
Give a reason for your answer.
The diagram is not drawn accurately.



8 Write these in order of size.
Start with the smallest.
$\frac{3}{8}$, 0.3, $\frac{1}{2}$, 65%

9 A cyclist travels at 40 km/h for 2 hours and then at 90 km/h for 3 hours.
Work out its average speed for the whole journey.

10 Here is an iteration formula.
$x_{n+1} = \sqrt{3x_n + 7}$
$x_0 = 6$
(a) Work out x_1
(b) Work out x_2. Give your answer correct to 3 decimal places. (Calculator)