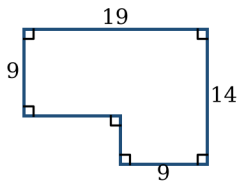
Day 262 **B Tier 10-a-day**

1 A car travels 8 km on each litre of petrol. (Calculator)
Petrol costs £1.50 per litre.
Work out the cost of the petrol for a journey of 120 km.

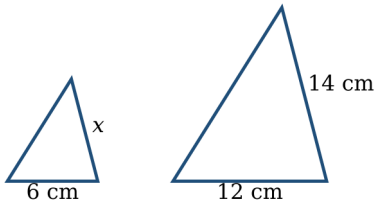
2 Simplify 7a + 3b + 3a − 5b

3 The diagram shows the shape of a garden.
All the corners are right angles. All lengths are in m.
(a) Work out the perimeter.
(b) Work out the area.



4 Work out 314 × 20

5 The two triangles are similar.
(a) Write down the scale factor of the enlargement from the smaller triangle to the larger triangle.
(b) Work out the value of x.
The diagram is not drawn accurately.



Day 262	B Tier 10-a-day
6 Factorise $16x^2 - 9$	
7 A kite flies at 15 metres per second. Work out this speed in kilometres per hour.	
8 The price of a laptop is £100. The price is first increased by 30%, then the new price is reduced by 25%. (a) Work out the final price. (b) Work out the overall percentage decrease in the price.	
9 Triangle PQR is isosceles with PQ = PR = 17 m. (Calculator) The base QR = 10 m. Work out the size of angle PQR. Give your answer correct to 1 decimal place.	
10 Here is an iteration formula. $x_{n+1} = 6 + \frac{8}{x_n}$ $x_0 = 2$ (a) Work out x_1 (b) Work out x_2. Give your answer correct to 3 decimal places. (Calculator)	