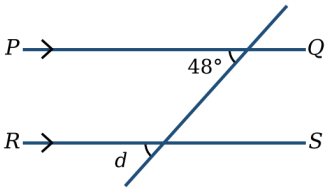
Day 168 **B Tier 10-a-day**

1 Uma has $\frac{3}{5}$ of £85.

Ivan has 30% of £240.
Who has more money? You must show your working.

2 Here is a formula.
P = 2l + 2w
Work out the value of P when l = 6 and w = 7

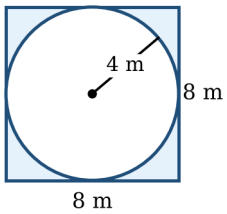
3 In the diagram, PQ is parallel to RS.
(a) Work out the size of angle d.
(b) Give a reason for your answer.
The diagram is not drawn accurately.



4 The table shows the probabilities of a biased dice landing on each colour.
(a) Work out the value of x.
(b) The biased dice is used 100 times. How many times would you expect White?

Colour	Pink	White	Orange	Black
Probability	0.1	0.25	x	0.2

5 Jasmine is paid £8.50 per hour for a 30 hour week. (Calculator)
Overtime is paid at time and a half.
In one week she works 9 hours of overtime.
Work out her total pay for that week.

Day 168	B Tier 10-a-day
6 A is the point (−4, 3) and B is the point (−13, −9). (a) Work out the coordinates of the midpoint of AB. (b) Work out the length of AB.	
7 Expand and simplify $(x + 3)^2$	
8 The diagram shows a square of side 8 m with a circle of radius 4 m cut out. The circle is in the centre of the square. Work out the area of the shaded region. Give your answer in terms of π. The diagram is not drawn accurately. 	
9 Show that $(n + 4)^2 - (n - 4)^2$ is a multiple of 16 for any whole number n.	
10 A lorry travels at 50 km/h for 1.5 hours and then at 20 km/h for 1.5 hours. Work out its average speed for the whole journey.	