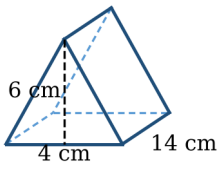
Day 308 **B Tier 10-a-day**

1 (a) The point P(8, 2) is enlarged with scale factor ½ and centre the origin. Write down the coordinates of the image.
(b) The point P(4, 1) is rotated 90° anticlockwise about the origin. Write down the coordinates of the image.

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

Colour	Red	Blue	Green	Yellow
Probability	0.1	0.35	x	0.15

3 Here is a prism.
Its cross-section is an isosceles triangle.
Work out the volume of the prism.
The diagram is not drawn accurately.



4 Cereal is sold in two sizes.
Small: 500 g for 95p
Large: 750 g for £1.20
Which size is better value for money?
You must show your working.

5 Priya is paid £12.50 per hour for a 35 hour week. (Calculator)
Overtime is paid at double time.
In one week she works 8 hours of overtime.
Work out her total pay for that week.

Day 308	B Tier 10-a-day
6 Expand and simplify $(x - 6)(x - 3)$	
7 A water tank has radius 2 cm and height 18 cm. (Calculator) Work out its volume. Give your answer correct to 1 decimal place.	
8 Factorise $9x^2 - 100$	
9 In a sale, all prices are reduced by 25%. (Calculator) A pair of trainers costs £187.50 in the sale. Work out the original price of the pair of trainers.	
10 A theme park sells adult tickets and child tickets. 2 adult tickets and 2 child tickets cost £50. 3 adult tickets and 2 child tickets cost £69. Work out the cost of one adult ticket and the cost of one child ticket.	