Day 211 **B Tier 10-a-day**

1 (a) Convert 3.5 m to mm.
(b) Convert 1.5 cm^2 to mm^2.

2 Expand
(a) $5(x + 6)$
(b) $2(4y - 8)$

3 A TV screen is a rectangle 100 cm wide and 75 cm high.
Work out the length of the diagonal of the screen.

4 A stratified sample of 40 students is taken from the 1000 students in the table.
Work out how many students should be sampled from Group B.

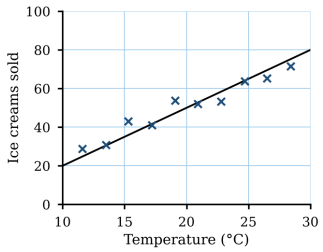
Group	Students
Group A	500
Group B	400
Group C	100

5 A straight line has equation $y = 4x + 20$
(a) Write down the coordinates of the point where the line crosses the y-axis.
(b) Work out the coordinates of the point where the line crosses the x-axis.

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6 George is paid £10 per hour for a 35 hour week. (Calculator)
Overtime is paid at time and a half.
In one week he works 5 hours of overtime.
Work out his total pay for that week.

7 The scatter graph shows information about temperature and ice creams sold.
A line of best fit is drawn.
(a) Describe the correlation.
(b) Use the line of best fit to estimate the ice creams sold when temperature is 15.



8 Work out $2\frac{2}{3} \times 2\frac{1}{3}$
Give your answer as a mixed number.

9 A table exerts a force of 80 newtons on the floor.
The area in contact with the floor is 4 m^2.
Work out the pressure on the floor.
Give your answer in N/m^2.

10 Complete the table of values for y = 4x + 5

x	0	1	2	3	4
y	5	9			