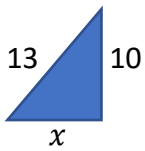
Answers to Revision Paper A	
1	$984 \times 0.9^3 = 717.336$ **$720\ pupils$**
2	$(x+2)(4x^2-5x-1)$ $= 4x^3 - 5x^2 - x + 8x^2 - 10x - 2$ $= \mathbf{4x^3 + 3x^2 - 11x - 2}$
3	$5-(2x-1) < 15,\ \ 5-2x+1 < 15, -2x < 9, \qquad \boldsymbol{x > -\frac{9}{2}}$
4	Line CR is a tangent to the circle at P, so triangle CPB is right-angled. Angle CBP = $90° - 51° = 39°$ Triangle EPC is a right-angled triangle in a semicircle with a right-angle at E. Hence angle EPR = $90° - 39° = \mathbf{51}°$
5	In Arran: The median is 39, the quartiles are 27 & 47.5, the semi-interquartile range is $\frac{47.5-27}{2} = 10.25$ **On average** more people voted in Dundee than in Arran. The voting numbers in Arran were **less consistent** than in Dundee. (In Dundee they were more consistent or less varied).
6	$\frac{3}{x} + \frac{4}{x+1} = \frac{3(x+1)}{x(x+1)} + \frac{4x}{x(x+1)} = \boldsymbol{\frac{7x+3}{x(x+1)}}$
7	$H = \sqrt{2t-a} \ \rightarrow\ H^2 = 2t - a \ \rightarrow\ H^2 + a = 2t \ \rightarrow\ \boldsymbol{\frac{H^2+a}{2} = t}$
8	$5c + 6s = 7.37 \qquad 15c + 18s = 22.11 \qquad 8s = 4.16,\ s = 0.52\ and\ c = 0.85$ $3c + 2s = 3.59 \qquad 15c + 10s = 17.95$ **Chocolate is £0.85 and sweets are £0.52**
9	Gradient is $\frac{35-23}{17-11} = \frac{12}{6}$ Straight line is $\boldsymbol{y = 2x + 1}$ A film score of 8 would give a sports score of **17**
10	Form a right-angled triangle  Using Pythagoras, $13^2 - 10^2 = 69,\ x = 8.3$ The width of the shape is $13 + 8.3 = \boldsymbol{21.3\ cm}$
11	$3x - 5y - 10 = 0, \quad -5y = -3x + 10,\ y = \frac{3}{5}x - 2$ The gradient is $\boldsymbol{m = \frac{3}{5}}$ and the y-intercept is $\boldsymbol{(0, -2)}$