Section B

7	166	2 **[2]**	M1: use of 50.5, 32.5 or 164.5 or one seen without other limits, or 166 and "yes". Equivalent correct arguments earn 2 marks.
8(a) **(b)**	$(x-9)(x+9)$ $\left(\frac{c-3}{5}\right)^2$	1 3 **[4]**	 M2: $\frac{c-3}{5}=\sqrt{m}$ or $(c-3)^2=25m$ M1: $c-3=5\sqrt{m}$ s.c.2: $\left(\frac{3\pm c}{5}\right)^2$
9	10	4 **[4]**	M3: 10.4 -10.5 balls M2: $500\div\left(\frac{4}{3}\pi\times 2.25^3\right)$, 500 ÷ [47.7 to 48] M1: $\left(\frac{4}{3}\pi\times 2.25^3\right)$ or 47.7 to 48 or for 500 / (their volume) - correct dim - or rounding their answer down MR: r = 4.5 ⇒ 1 ball for 3 marks, or 1.3(…) for 2 marks
10	2000	3 **[3]**	M2: 70 + 120 + 410 + 620 + 480 + 300, four correct and intent to add (acc products) M1: any **one** product / freq correct s.c. 2: 1600 or s.c.1 for ⅕ of M2 above
11	1230, 1232 -1233, 1235	3 **[3]**	M2: $520\times\left(\frac{24}{18}\right)^3$ or $520\div\left(\frac{18}{24}\right)^3$ M1: $\left(\frac{24}{18}\right)^3$ or $\left(\frac{18}{24}\right)^3$ [acc $\frac{4}{3}$ vice $\frac{24}{18}$ etc] [2.37 or 0.42] or for answer 219-220
12(a) **(b)**	$y=\frac{7}{16}x^2$ o.e. [0.4375, 0.44] 15.75 o.e. (i.s.w.)	2 2 **[4]**	M1: $7=k\times 16, k\times 4^2$ seen M1: $\frac{7}{16}\times 6^2$ or their $k\times 6^2$ or $7\times\left(\frac{6}{4}\right)^2$ or ans of 15.7, 15.8 s.c. 2: (inv sq) ans of 3.1(1…) following k = 112
13	24.2 - 24.4, 24	5 **[5]**	M2: $SY=28\cos 36°$, 22.6… M1: $\cos 36°$ or $\sin 54°$ M2: (their SY) $\tan 47°$ o.e. M1: $\tan 47°$ or $\tan 43°$
Total Section B		**25**	