Section A

1(a)	$2y^4$	2	M1: y^4, or 2, or $9y^2$ s.o.i. as denom
(b)	$9x^2-12x+4$	2 **[4]**	M1: 2 correct terms or 3 correct from $9x^2-6x-6x+4$
2(a)	25, $2.5\times10^{(1)}$	2	M1: $\frac{200000}{8000}$, $\frac{200}{8}$, figs 25 or 200,000 & 8000
(b)	4×10^5	3 **[5]**	M2: $\frac{4\times10^9}{10^4}$, or $\frac{4\times10^9}{10^{(1)}\times10^{-3}\times10^6}$ o.e. or M1: two of $\frac{4\times10^9}{(5\times10^{-3})(2\times10^6)}$ o.e. or figs 4 s.c. 2: 400,000 or 0.4×10^6 etc
3	$\frac{39}{64}$	4 **[4]**	M3: $(\frac{3}{8})^2+\frac{3}{8}\times\frac{5}{8}+\frac{5}{8}\times\frac{3}{8}$ [acc $\frac{3}{8}\times\frac{1}{2}+\frac{3}{8}\times\frac{1}{8}$ for $\frac{3}{8}\times\frac{5}{8}$] M2: two of these seen M1: one of these seen, or 2 / 3 branch tree complete and correct with labels & probs, or list equiv, or $\frac{1}{8}, \frac{5}{8}, \frac{3}{16}, \frac{3}{64}$ seen s.c. 3: ans of $\frac{30}{64}, \frac{15}{32}$ ***Alternative method*** M3: $1-(\frac{5}{8})^2$ or M2: $(\frac{5}{8})^2$
4(a)	$3x^2+8x-3=48$ (or $9x-x$)	3	M2: $(x+3)(3x-1)=48$ M1: $\frac{1}{2}(x+3)(3x-1)=24$ or $3x^2+8x-3$ NB 0 for final given answer
(b)	8 (after correct algebra)	3 **[6]**	M2: $(3x+17)(x-3)$ [= 0] M1: $(3x\pm17)(x\pm3)$ s.c.2: ans of 3 following alg, ans 16 foll $17/3$ s.c.1: answer of 8 or 3 w/o algebra Quad form: M2 for $(-8\pm\sqrt{676})/6$ or M1 for fully correct substitution
5	$y = x + 3$ drawn -2.2 to -2.1, 0.2 to 0.3, 1.8 to 1.9 f.t. cand's wrong straight line	1 2 **[3]**	M1: for any one
6	$r = 55$, $s = 35$ Valid reason for either	2 1 **[3]**	1 each (s.c. 1: "their $r + s$" = 90) e.g. alt seg for r; angle at centre and isos triangle for s; tan perp to radius. Must be in words, showing details of arithmetic not enough.
Total Section A		**25**	