REVISION MARKING GUIDELINE 2025

QUESTION 1/*VRAAG* 1

1.1.1	$x^2-3x-10=0$ $(x+2)(x-5)=0$ $x=-2$ or $x=5$	✓factors ✓ $x=-2$ ✓ $x=5$ (3)
1.1.2	$3x^2+6x+1=0$ $x=\frac{-(6)\pm\sqrt{(6)^2-4(3)(1)}}{2(3)}$ $x=-1{,}82$ or $x=-0{,}18$	✓correct substitution into the formula ✓ $x=-1{,}82$ ✓ $x=-0{,}18$ (3)
1.1.3	$2^{x+4}+2^x=8\,704$ $2^x(16+1)=8\,704$ $2^x=512=2^9$ OR $x=\log_2 512$ $x=9$ $\quad=9$	✓common factor ✓ simplification ✓ answer (3)
1.1.4	$(x-8)(x+2)\le 0$ CV: $x=8$ or $x=-2$ $\therefore -2\le x\le 8$	✓critical values ✓✓ $-2\le x\le 8$ (3)
1.1.5	$x+3\sqrt{x+2}=2$ $3\sqrt{x+2}=2-x$ $9(x+2)=4-4x+x^2$ $x^2-13x-14=0$ $(x-14)(x+1)=0$ $x\ne 14$ or $x=-1$	✓isolating the surd ✓squaring both sides ✓standard form ✓answer with selection (4)

1.2	$(y-3)(x+2)=32$ $yx+2y-3x-6=32 \quad ....(1)$ $2(y-3)+2(x+2)=24$ $y+x-1=12$ $y=13-x \qquad ....(2)$ $(13-x)x+2(13-x)-3x-6=32$ $13x-x^2+26-2x-3x-6-32=0$ $-x^2+8x-12=0$ $x^2-8x+12=0$ $(x-6)(x-2)=0$ $x=6$ or $x=2$ $y=13-6$ or $y=13-2$ $y=7 \qquad y=11$ ***OR/OF*** $(y-3)(x+2)=32$ $yx+2y-3x-6=32 \quad ....(1)$ $2(y-3)+2(x+2)=24$ $y+x-1=12$ $x=13-y \qquad ....(2)$ $y(13-y)+2y-3(13-y)-6=32$ $13y-y^2+2y-39+3y-6-32=0$ $-y^2+18y-77=0$ $y^2-18y+77=0$ $(y-7)(y-11)=0$ $y=7$ or $y=11$ $x=13-7$ or $x=13-11$ $x=6 \qquad x=2$	✓eq 1 ✓ eq 2 ✓substitution ✓standard form ✓x-values ✓y-values (6) ***OR/OF*** ✓eq 1 ✓ eq 2 ✓substitution ✓standard form ✓y-values ✓x-values (6)

1.3	$(1+x^m+x^{-n})^2-\left(1-x^m-x^{-n}\right)^2$ $=\left[1+x^m+x^{-n}-\left(1-x^m-x^{-n}\right)\right]\left[1+x^m+x^{-n}+\left(1-x^m-x^{-n}\right)\right]$ $=(2)\left(2x^m+2x^{-n}\right)$ $\therefore$ divisible by 2 for all integer values of m and n **OR/*OF*** $(1+x^m+x^{-n})^2=1+x^m+x^{-n}+x^m+x^{2m}+x^{m-n}+x^{-n}+x^{m-n}+x^{-2n}$ $=1+2x^m+2x^{-n}+2x^{m-n}+x^{2m}+x^{-2n}$ $(1-x^m-x^{-n})^2=1-2x^m-2x^{-n}+2x^{m-n}+x^{2m}+x^{-2n}$ $(1+x^m+x^{-n})^2-(1-x^m-x^{-n})^2=4x^m+4x^{-n}$ $=4(x^m+x^{-n})$ $=(2)\left(2x^m+2x^{-n}\right)$ $\therefore$ divisible by 2 for all integer values of m and n	✓ difference of squares ✓ simplification ✓ answer (3) **OR/*OF*** ✓ expansion ✓ expansion ✓ answer (3)

QUESTION 2/*VRAAG* 2

2.1.1	$7+12+17+\ldots\ldots$ $T_n=a+(n-1)d$ $T_{91}=7+(91-1)(5)$ $T_{91}=457$ **OR/*OF*** $d=5$ $T_n=5n+2$ $T_{91}=5(91)+2$ $T_{91}=457$	✓$d=5$ ✓substitution into correct formula ✓answer (3) **OR/*OF*** ✓$d=5$ ✓substitution $n=91$ ✓answer (3)
2.1.2	$S_n=\frac{n}{2}\left[2a+(n-1)d\right]$ $S_{91}=\frac{91}{2}\left[2\times 7+(91-1)(5)\right]$ $S_9=21\ 112$ **OR/*OF*** $S_n=\frac{n}{2}(a+l)$ $S_{91}=\frac{91}{2}(7+457)$ $S_{91}=21\ 112$	✓substitution into correct formula ✓answer (2) **OR/*OF*** ✓substitution into correct formula ✓answer (2)
2.1.3	$T_n=7+(n-1)(5)$ $5n+2=517$ $5n=515$ $n=103$	✓substitution into correct formula ✓equate ✓answer (3)
2.2.1	$T_1=3$; $T_2-T_1=9$ and $T_3-T_2=21$ 3 12 33 66 111 9 21 33 45 12 12 12 $\therefore T_5=3+9+21+33+45=111$ **OR/*OF*** $2a=12$ $a=6$ $3(6)+b=9$ $b=-9$ $6-9+c=3$ $T_5=6(5)^2-9(5)+6=111$	✓ constant second diff = 12 ✓ first differences : 33 and 45 (2) **OR/*OF*** ✓ constant second diff = 12 ✓substitute 5 (2)

2.2.2	$2a = 12$ $a = 6$ $3(6) + b = 9$ or $5\times6+b=21$ $b = -9$ $6-9+c=3$ $c = 6$ $T_n = 6n^2 - 9n + 6$	✓ $2a = 12$ ✓ $3(6)+b=9 / 5\times6+b=21$ ✓ $6-9+c=3$ (3)
2.2.3	$T_n^{/} = 12n - 9 > 0$ $n > \frac{3}{4}$ $\therefore$ T_n is increasing for $n \in N$ **OR**/***OF*** $n = -\frac{b}{2a} = -\frac{-9}{2(6)}$ $n = \frac{3}{4}$ $\therefore$ min at $n = 1$ for $n \in N$ $\therefore$ T_n is increasing for $n \in N$	✓ $T_n^{/} = 12n - 9$ ✓ $n > \frac{3}{4}$ ✓ increasing for $n \in N$ (3) **OR**/***OF*** ✓ $n = -\frac{b}{2a} = \frac{9}{2(6)}$ ✓ $n = \frac{3}{4}$ ✓ increasing for $n \in N$ (3)
		[16]

QUESTION 3/*VRAAG* 3

3.1.1	$T_n = ar^{n-1}$ $T_n = 3(2)^{n-1}$	✓ $T_n = 3(2)^{n-1}$ (1)
3.1.2	$\sum_{p=1}^{k} \frac{3}{2}.2^p = 98\ 301$ $\sum_{p=1}^{k} \frac{3}{2}.2^p = 3+6+12+...$ $n = k$ $\frac{3[(2)^k - 1]}{2-1} = 98\ 301$ $(2)^k = 32\ 768$ $2^k = 2^{15}$ **OR/*OF*** $k = \log_2 32\ 768$ $\therefore k = 15$	✓expansion ✓ $n = k$ ✓substitution into correct formula ✓$k = 15$ (4)
3.2	$S_{22} = \frac{22}{2}[2a + 21(3)]$ $S_{22} = 22a + 693$ $S_\infty = \frac{a}{1-\frac{1}{3}}$ $= \frac{3a}{2}$ $\therefore 22a + 693 = \frac{3a}{2} + 734$ $44a + 1386 = 3a + 1468$ $41a = 82$ $a = 2$	✓ substitution into S_n ✓ $S_{22} = 22a + 693$ ✓substitution into S_∞ ✓ $S_{22} = S_\infty + 734$ ✓ answer (5)
		[10]

QUESTION 5/*VRAAG* 5

5.1	(1 ; 8)	✓ $x = 1$ ✓ $y = 8$ (2)
5.2	$y = -\frac{1}{2}(0-1)^2 + 8$ $= 7\frac{1}{2}$ $C\left(0 ; \frac{15}{2}\right)$	✓$x = 0$ ✓ answer (2)
5.3	$8 = \frac{d}{1}$ $\therefore d = 8$	✓substitution (1 ; 8) (1)
5.4	$y \in R ;\ y \neq 0$	✓ $y \neq 0$ (1)
5.5	$-3 \leq x < 0$ or $x \geq 5$ **OR/*OF*** $x \in [-3 ;\ 0) \cup [5 ; \infty)$	✓✓ $-3 \leq x < 0$ ✓ $x \geq 5$ (3)
5.6	$-2x + k = \frac{8}{x}$ $-2x^2 + kx - 8 = 0$ $\Delta = (k)^2 - 4(-2)(-8)$ $k^2 - 64 < 0$ $CV : k = 8\ ;\ k = -8$ $\therefore -8 < k < 8$ **or/of** $k \in (-8 ; 8)$ **OR/*OF*** $g^{/}(x) = h^{/}(x)$ $-\frac{8}{x^2} = -2$ $-8 = -2x^2$ $x = \pm 2$ $y = \pm 4$ $\therefore$ B(2 ; 4) and A(– 2 ; – 4) For tangents: $h(x) = -2x + k$ or $h(x) = -2x + k$ $4 = -2(2) + k$ $-4 = -2(-2) + k$ $k = 8$ $k = -8$ $\therefore -8 < k < 8$ or/*of* $k \in (-8 ; 8)$	✓ $-2x + k = \frac{8}{x}$ ✓ standard form ✓substitution into Δ ✓ $\Delta < 0$ or $\Delta = 0$ ✓inequality (5) **OR/*OF*** ✓ $-\frac{8}{x^2}$ ✓ $= -2$ ✓ x-values ✓ y-values ✓inequality (5)

5.7	$h(x) = -2x+8$ $-2x+8 = \frac{8}{x}$ $-2x^2+8x = 8$ $-2x^2+8x-8 = 0$ $x^2-4x+4 = 0$ $(x-2)^2 = 0$ $\therefore x = 2$ $f(2) = \frac{15}{2}$ $h(2) = 4$ $4 = \frac{15}{2}+t$ $\therefore t = -\frac{7}{2}$	✓ $x = 2$ ✓ $f(2)$ ✓ $h(2)$ ✓answer (4)
	OR/*OF* $f(2) = \frac{15}{2}$ Tangent point of contact (2 ; 4) $\therefore 4 = -\frac{1}{2}(2-1)^2+8+t$ $4 = \frac{15}{2}+t$ $\therefore t = -\frac{7}{2}$	**OR/*OF*** ✓ $x = 2$ ✓ $f(2)$ ✓ $h(2)$ ✓answer (4)
	OR/*OF* $g(x) = 8x^{-1}$ $g'(x) = -8x^{-2}$ $-2 = -8x^{-2}$ $\frac{1}{4} = \frac{1}{x^2}$ $x = 2$ $y = \frac{8}{2} = 4$ $R(2\ ;\ 4)$ $y = -\frac{1}{2}(x-1)^2+8+t$ $4 = -\frac{1}{2}(2-1)^2+8+t$ $t = -\frac{7}{2}$	**OR/*OF*** ✓ $x = 2$ ✓ $h(2)$ ✓ $f(2)$ ✓answer (4)

QUESTION/ *VRAAG* 5

5.1	$-2x^2+4x+16=0$ $x^2-2x-8=0$ $(x-4)(x+2)=0$ $x=4$ or $x=-2$ $\therefore$ A$(-2;0)$ and B$(4;0)$	✓ factors ✓ $x=-2$ ✓ $x=4$ (3)
5.2	$f(x)=-2x^2+4x+16$ $-\frac{b}{2a}=-\frac{-4}{-2(2)}=1$ $f(1)=-2(1)^2+4(1)+16=18$ $\therefore$ C$(1;18)$ **OR/OF** $f(x)=-2x^2+4x+16$ $f'(x)=-4x+4$ $-4x+4=0$ $x=1$ $f(1)=-2(1)^2+4(1)+16=18$ $\therefore$ C$(1;18)$	✓ 1 ✓ 18 (2) **OR/OF** ✓ 1 ✓ 18 (2)
5.3	$y\leq 18$ **OR/OF** $y\in(-\infty;18]$	✓ $y\leq 18$ (1) **OR/OF** ✓ $y\in(-\infty;18]$ (1)
5.4	TP (1 ; 18) for f TP (2 ; 15) for h $\therefore$ $p=-1$ $q=-3$	✓ TP for h at (2 ; 15) ✓ $p=-1$ ✓ $q=-3$ (3)
5.5	$y=2x+4$ $x=2y+4$ $\therefore$ $y=\frac{1}{2}x-2$	✓swop x and y ✓ $y=\frac{1}{2}x-2$ (2)
5.6	$g(x)=0$ or $g^{-1}(x)=0$ $x=4$ or $x=-2$ (product 0 at x-intercepts)	✓ $x=4$ ✓ $x=-2$ (2)

5.7	$-2x^2+4x+16+k=2x+4$ $-2x^2+2x+12+k=0$ $b^2-4ac<0$ $(2)^2-4(-2)(12+k)<0$ $4+8(12+k)<0$ $100+8k<0$ $k<-12,5$ **OR/OF** $g^{/}(x)=2$ $f^{/}(x)=-4x+4=2$ $x=\frac{1}{2}$ $f\left(\frac{1}{2}\right)=17,5$ $g\left(\frac{1}{2}\right)=5$ $\therefore k<-12,5$	✓equating ✓ standard form ✓ $b^2-4ac<0$ ✓ substitution ✓ answer (5) **OR/OF** ✓ $g^{/}(x)=2$ ✓ $f^{/}(x)=-4x+4$ ✓ $f\left(\frac{1}{2}\right)=17,5$ ✓ $g\left(\frac{1}{2}\right)=5$ ✓ answer (5)
		[18]

QUESTION/*VRAAG* 6

6.1.1	$y=3^x$ $x=3^y$ $y=\log_3 x$	✓ swop x and y ✓ equation (2)
6.1.2	$h(x)=3^{x-4}+2$ Transformation: 4 units left, 2 units down $P^{/}(2;9)$	✓ $x=2$ (A) ✓ $y=9$ (A) (2)
6.2	$f(x)=2^{x+p}+q$ $q=-16$ $16=2^{p+3}-16$ $2^{p+3}=32$ $2^{p+3}=2^5$ $\therefore p+3=5$ $p=2$	✓ $q=-16$ ✓ substitute (3 ; 16) ✓ $2^{p+3}=2^5$ or $p+3=\log_2 32$ ✓ $p=2$ (4)
		[8]

QUESTION/*VRAAG* 4

4.1	M(3 ; 4)	✓ x –value ✓ y- value (2)
4.2	$f(x)=\frac{4}{x-3}+4$ $y=\frac{4}{0-3}+4=\frac{8}{3}$ $\therefore \mathrm{D}\left(0\,;\frac{8}{3}\right)$	✓$x=0$ ✓y-value (2)
4.3	M (3 ; 4) $y=x+t$ **OR/*OF*** $y=(x+p)+q$ $4=3+t$ $y=x-3+4$ $t=1$ $y=x+1$ $\therefore t=1$	✓ substituting M(3 ; 4) ✓ value of t (2)
4.4	$\frac{4}{x-3}+4=0$ $-4(x-3)=4$ $x-3=-1$ $x=2$ C(2 ; 0) $\therefore 2\leq x<3$	✓ $y=0$ ✓ $x=2$ ✓✓ answer (4)
4.5	$\frac{4}{x-3}+4=x+1$ $\frac{4}{x-3}=x-3$ $4=(x-3)^2$ $\pm 2=x-3$ $\therefore x=5$ or $x\neq 1$ $\therefore$ A (5 ; 6) **OR/*OF*** Point closest to the origin in $y=\frac{a}{x}$ is $(\sqrt{a};\sqrt{a})$ By translation: $\mathrm{A}(\sqrt{a}+3;\sqrt{a}+4)$ A(5 ; 6)	✓equating ✓✓A (3) **OR/*OF*** ✓translation ✓✓A (3)
4.6	$h(x)=\frac{-4}{x+3}+4=\frac{4}{-x-3}+4$ $\therefore$ Reflection in y – axis. $\mathrm{A}^{/}(-5;6)$ $\mathrm{AA}^{/}=10$	✓ coordinate ✓ distance (2)
		[15]

QUESTION/ *VRAAG* 8

8.1	$f(x)=3x^2$ $f^{/}(x)=\lim_{h\to 0}\frac{f(x+h)-f(x)}{h}$ $f^{/}(x)=\lim_{h\to 0}\frac{3(x+h)^2-3x^2}{h}$ $f^{/}(x)=\lim_{h\to 0}\frac{3x^2+6xh+3h^2-3x^2}{h}$ $=\lim_{h\to 0}\frac{6xh+3h^2}{h}$ $=\lim_{h\to 0}\frac{h(6x+3h)}{h}$ $=6x$	✓ substitution ✓ expansion ✓ simplification ✓ $\lim_{h\to 0}\frac{h(6x+3h)}{h}$ ✓ $6x$ (5)
8.2.1	$f(x)=x^2-3+9x^{-2}$ $f^{/}(x)=2x-18x^{-3}$	✓ $9x^{-2}$ ✓ $2x$ ✓ $-18x^{-3}$ (3)

QUESTION/*VRAAG* 4

4.1	M(3 ; 4)	✓ x –value ✓ y- value (2)
4.2	$f(x)=\frac{4}{x-3}+4$ $y=\frac{4}{0-3}+4=\frac{8}{3}$ $\therefore \text{D}\left(0\,;\frac{8}{3}\right)$	✓$x=0$ ✓y-value (2)
4.3	M (3 ; 4) $y=x+t$ **OR/*OF*** $y=(x+p)+q$ $4=3+t$ $y=x-3+4$ $t=1$ $y=x+1$ $\therefore t=1$	✓ substituting M(3 ; 4) ✓ value of t (2)
4.4	$\frac{4}{x-3}+4=0$ $-4(x-3)=4$ $x-3=-1$ $x=2$ C(2 ; 0) $\therefore 2\le x<3$	✓ $y=0$ ✓ $x=2$ ✓✓ answer (4)
4.5	$\frac{4}{x-3}+4=x+1$ $\frac{4}{x-3}=x-3$ $4=(x-3)^2$ $\pm 2=x-3$ $\therefore x=5$ or $x\neq 1$ $\therefore$ A (5 ; 6) **OR/*OF*** Point closest to the origin in $y=\frac{a}{x}$ is $(\sqrt{a}\,;\sqrt{a})$ By translation: $\text{A}(\sqrt{a}+3;\sqrt{a}+4)$ A(5 ; 6)	✓equating ✓✓A (3) **OR/*OF*** ✓translation ✓✓A (3)
4.6	$h(x)=\frac{-4}{x+3}+4=\frac{4}{-x-3}+4$ $\therefore$ Reflection in y – axis. $\text{A}^{/}(-5;6)$ $\text{AA}^{/}=10$	✓ coordinate ✓ distance (2)
		[15]

8.2.2	$g(x) = (\sqrt{x}+3)(\sqrt{x}-1)$ $g(x) = x + 2x^{\frac{1}{2}} - 3$ $g^{/}(x) = 1 + x^{-\frac{1}{2}}$	✓ x ✓ $2x^{\frac{1}{2}}$ ✓1 ✓ $x^{-\frac{1}{2}}$ (4)
		[12]

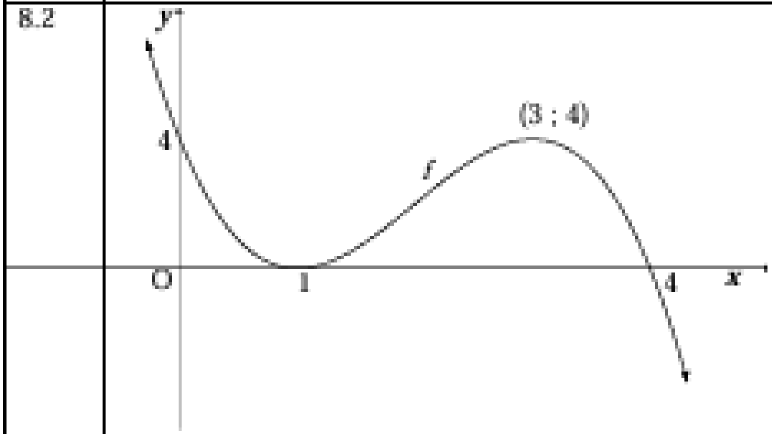
QUESTION/ *VRAAG* 9

9.1	$f^{/}(x) = 6x^2 + 6x - 12$ $6x^2 + 6x - 12 = 0$ $x^2 + x - 2 = 0$ $(x+2)(x-1) = 0$ $x = -2$ or $x = 1$ $y = 20$ or $y = -7$ $\therefore$ A(−2 ; 20) and B(1 ; −7)	✓ $6x^2 + 6x - 12$ ✓ $= 0$ ✓factors ✓ x-values ✓ y-values (5)
9.2	$f^{//}(x) = 12x + 6$ $12x + 6 > 0$ $12x > -6$ $x > -\frac{1}{2}$ **OR/OF** $x = \frac{-2+1}{2} = -\frac{1}{2}$ $\therefore x > -\frac{1}{2}$	✓$12x + 6$ ✓ $f^{//}(x) > 0$ ✓ $x > -\frac{1}{2}$ (3) **OR/OF** ✓ $x = -\frac{1}{2}$ ✓✓ $x > -\frac{1}{2}$ (3)
9.3	$f^{/}(2) = 24$ Equation of the tangent: $y - 4 = 24(x - 2)$ $y = 24x - 44$	✓ $f^{/}(2)$ ✓ 24 ✓ equation (3)
		[11]

QUESTION 7/*VRAAG* 7

7.1	$f'(x)=\lim_{h\to 0}\frac{f(x+h)-f(x)}{h}$ $f'(x)=\lim_{h\to 0}\frac{-4(x+h)^2-(-4x^2)}{h}$ $f'(x)=\lim_{h\to 0}\frac{-4x^2-8xh-4h^2+4x^2}{h}$ $f'(x)=\lim_{h\to 0}\frac{-8xh-4h^2}{h}$ $f'(x)=\lim_{h\to 0}\frac{h(-8x-4h)}{h}$ $f'(x)=\lim_{h\to 0}(-8x-4h)$ $f'(x)=-8x$	✓substitution into correct formula ✓ $f(x+h)=-4x^2-8xh-4h^2$ ✓simplification ✓common factor ✓answer (5)
	OR/*OF* $f(x+h)=-4(x+h)^2=-4x^2-8xh-4h^2$ $f(x+h)-f(x)=-4x^2-8xh-4h^2-(-4x^2)$ $=-8xh-4h^2$ $f'(x)=\lim_{h\to 0}\frac{f(x+h)-f(x)}{h}$ $f'(x)=\lim_{h\to 0}\frac{-8xh-4h^2}{h}$ $f'(x)=\lim_{h\to 0}\frac{h(-8x-4h)}{h}$ $f'(x)=\lim_{h\to 0}(-8x-4h)$ $f'(x)=-8x$	**OR/*OF*** ✓ $f(x+h)=-4x^2-8xh-4h^2$ ✓simplification ✓substitution into correct formula ✓common factor ✓answer (5)
7.2.1	$f(x)=2x^3-3x$ $f'(x)=6x^2-3$	✓ $6x^2$ ✓ -3 (2)
7.2.2	$D_x\left[7.\sqrt[3]{x^2}+2x^{-5}\right]$ $D_x\left[7.x^{\frac{2}{3}}+2x^{-5}\right]$ $=\frac{14}{3}x^{-\frac{1}{3}}-10x^{-6}$	✓ $x^{\frac{2}{3}}$ ✓derivative with rational exp ✓ $-10x^{-6}$ (3)
7.3	$-6x^2+8>0$ $x^2<\frac{8}{6}$ CV's: $x=-\frac{2}{\sqrt{3}}$ or $x=\frac{2}{\sqrt{3}}$ Positive for : $-\frac{2}{\sqrt{3}}<x<\frac{2}{\sqrt{3}}$	✓CV's: $x=\pm\frac{2}{\sqrt{3}}$ ✓✓answer (3)
		[13]

QUESTION 8/ *VRAAG* 8

8.1	$f'(x) = -3x^2 + 12x - 9$ $-3x^2 + 12x - 9 = 0$ $x^2 - 4x + 3 = 0$ $(x-3)(x-1) = 0$ $\therefore x = 3$ or $x = 1$ $f(3) = -(3)^3 + 6(3)^2 - 9(3) + 4 = 4$ $f(1) = -(1)^3 + 6(1)^2 - 9(1) + 4 = 0$ $\therefore$ turning points are: $(3\ ;\ 4)$ and $(1\ ;\ 0)$	✓ $f'(x) = -3x^2 + 12x - 9$ ✓ $f'(x) = 0$ ✓ both x-values ✓ both y-values (4)
8.2		✓ y-intercept ✓ both x-intercepts ✓ both turning points ✓ shape (4)
8.3	$0 < k < 4$ or/*of* $k \in (0\ ;\ 4)$	✓✓ k between y-values of turning points (2)
8.4	$f''(x) = -6x + 12 = 0$ $x = 2$ Max at $(2\ ;\ 2)$ $f'(2) = 3$ $\therefore y - 2 = 3(x-2)$ or $2 = 3(2) + c$ $g(x) = 3x - 4$ $g(x) = 3x - 4$ **OR/*OF*** Point of inflection: $x = \frac{3+1}{2}$ $x = 2$ Max at $(2\ ;\ 2)$ $f'(2) = 3$ $\therefore y - 2 = 3(x-2)$ or $2 = 3(2) + c$ $g(x) = 3x - 4$ $g(x) = 3x - 4$	✓ $f''(x) = -6x + 12$ ✓ $f''(x) = 0$ ✓ x-value ✓ y-value ✓ gradient at x-value ✓ equation of tangent (6) **OR/*OF*** ✓✓ $\frac{3+1}{2}$ ✓ x-value ✓ y-value ✓ gradient at x-value ✓ equation of tangent (6)
8.5	$\tan\theta = 3$ $\therefore \theta = 71{,}57°$	✓ gradient of g ✓ answer (2)
		[18]