1.

	$3x^2$ **or** -40		5	M1 for differentiating one of the first two terms correctly
	$3x^2 - 40$			A1 for both terms correct and no additions
	"$3x^2 - 40$" = 8			M1ft dep on M1 for equating their quadratic derivative with 8 (Derivative must be in the form $ax^2 - 40$ or $3x^2 - b$ where $a \neq 0$ and $b \neq 0$)
	$(y =)"4"^3 - 40\times"4"+1 (= -95)$ or $y = ("-4")^3 - 40\times"-4"+1$ (= 97)			M1ft dep on previous M1for substituting at least one x value into y NB Following through from $ax^2 - 40 = 8$ or $3x^2 - b = 8$, their x values must be correct
	Working not required, so correct answer scores full marks (unless from obvious incorrect working)	(4, –95), (–4, 97)		A1 both coordinates must be paired correctly
				Total 5 marks

2.

(i)		(–2, –4)	1	B1
(ii)		(5, –10)	1	B1
				Total 2 marks

3. ,

	$\pm 3(x^2 \pm 4x)$..... or $\pm 3(x^2 \pm 4x$.....$)$ or $b = 3$		4	M1 for factorising $-3x^2 + 12x$ or stating the correct value of b or $b = 3$ embedded in an incorrect final answer in the form $a - 3(x - c)^2$
	$-3[(x-2)^2$ .....$]$ or $-3(x-2)^2$			M1 for a **correct** first step to complete the square
	$-3[(x-2)^2 - (2)^2]$..... oe or $-3(x-2)^2 + 12$..... or $-3[(x-2)^2 - (2)^2$ .....$]$ oe			M1 for a **correct** second step to complete the square
	Working not required, so correct answer scores full marks (unless from obvious incorrect working)	$29 - 3(x-2)^2$		A1 oe eg $-3(x-2)^2 + 29$
				Total 4 marks

4.

	$\left(\frac{dy}{dx}=\right)3x^2-16x-12$		5	M1	for differentiation with at least 2 terms correct
	"$3x^2-16x-12$"$=0$			M1ft	(dep on previous M1) for their $\frac{dy}{dx}=0$
	eg $(3x+2)(x-6)(=0)$ **or** $(x=)\ \frac{-(-16)\pm\sqrt{(-16)^2-4\times3\times(-12)}}{2\times3}$ **or** $3\left[\left(x-\frac{8}{3}\right)^2-\frac{64}{9}\right]-12(=0)$			M1ft	(dep on 1st M1) for the correct x value (of 6) – ignore other x value **OR** for solving ***their*** 3 term quadratic equation using any correct method (if factorising, allow brackets which expanded give 2 out of 3 terms correct) (if using formula allow one sign error and some simplification – allow as far as $\frac{16\pm\sqrt{256+144}}{6}$) (if completing the square then as far as shown on LHS) The award of this mark implies the previous M mark
	eg $6^3-8\times6^2-12\times6+5(=-139)$			M1ft	(dep on 1st M1) for $x=6$ substituted into correct equation for curve C **OR** (dep on 1st M1 and 2 values for x) for ***their*** greatest x value substituted into correct equation for curve C (ignore any attempt to substitute their least x value)
	Working required	(6, –139)		A1	(dep on M2) cao
					Total 5 marks

5.

(a)	$2\left(x^2-\frac{11}{2}x\right)+\ldots$ **or** $2\left(x^2-\frac{11}{2}x+\ldots\right)$ oe		3	M1	for taking out a factor of 2
	$2\left[\left(x-\frac{11}{4}\right)^2-\frac{11^2}{4^2}\right]+\ldots$ **or** $2\left[\left(x-\frac{11}{4}\right)^2-\frac{11^2}{4^2}+\ldots\right]$ oe			M1	for correctly completing square
	Correct answer scores full marks (unless from obvious incorrect working)	$2\left(x-\frac{11}{4}\right)^2-\frac{49}{8}$		A1	oe, eg $2(x-2.75)^2-6.125$ allow $a=2$, $b=\frac{11}{4}$ oe, $c=\frac{49}{8}$ oe if no other marks awarded, award SCB1 for $2\left(x-\frac{11}{4}\right)^2+\ldots$
	ALTERNATIVE				
(a)	$ax^2-2bax+b^2a-c$		3	M1	for correctly expanding $a(x-b)^2-c$ to give $ax^2-2bax+b^2a-c$
	$-2ba=-11$ or $2ba=11$ and $b^2a-c=9$			M1	for setting up 2 equations using the coefficient of x and the numerical term
	Correct answer scores full marks (unless from obvious incorrect working)	$2\left(x-\frac{11}{4}\right)^2-\frac{49}{8}$		A1	oe, eg $2(x-2.75)^2-6.125$ allow $a=2$, $b=\frac{11}{4}$ oe, $c=\frac{49}{8}$ oe if no other marks awarded, award SCB1 for $2\left(x-\frac{11}{4}\right)^2+\ldots$
(b)		$\left(\frac{23}{4},-\frac{49}{8}\right)$	2	B2ft	oe, eg (5.75, −6.125) (B1ft for one correct coordinate)
					Total 5 marks

6.

	eg $2(5-y)^2+3y^2=210$ $\sqrt{\frac{210-3y^2}{2}}=5-y$ oe	Eg $2x^2+3(5-x)^2=210$ $\sqrt{\frac{210-2x^2}{3}}=5-x$ oe		5	M1 substitution of $x=\pm5\pm y$ or $y=\pm5\pm x$ into $2x^2+3y^2=210$ or a correct equation formed by using $x=\pm5\pm y$ or $y=\pm5\pm x$ to obtain an equation in x only or y only
	eg $5y^2-20y-160\ (=0)$ **or** $y^2-4y-32\ (=0)$	eg $5x^2-30x-135\ (=0)$ **or** $x^2-6x-27\ (=0)$			M1 dep on previous M1 for multiplying out and collecting terms, forming a three term quadratic in any form of $ax^2+bx+c\ (=0)$ where **at least 2** coefficients (a or b or c) are correct
	eg $(y-8)(y+4)\ (=0)$ $y=\frac{--4\pm\sqrt{(-4)^2-4\times1\times-32}}{2\times1}$ eg $(y-2)^2-2^2=-32$ (allow incorrect labels for x/y)	eg $(x-9)(x+3)\ (=0)$ $x=\frac{--6\pm\sqrt{(-6)^2-4\times1\times-27}}{2\times1}$ eg $(x-3)^2-3^2-27=0$ (allow incorrect labels for x/y)			M1 (dep on first M1) for a complete method to solve their 3-term quadratic equation ($ax^2+bx+c=0$); correct factorisation or substitution into formula (allow one sign error and some simplification – allow as far as $\frac{4\pm\sqrt{16+128}}{2}$ or $\frac{6\pm\sqrt{36+108}}{2}$) or completing the square or for seeing $x=9$, $x=-3$ **or** $y=8$, $y=-4$
	eg $x+8=5$ and $x+-4=5$ (correct labels for x/y)	eg $y=5-9$ and $y=5--3$ (correct labels for x/y)			M1ft dep on previous M1 for substituting **their** 2 found values of x or y in a suitable equation (allow use of quadratic equation) **or** fully correct values for the other variable must see substitution for incorrect x/y values
	working required		(9, –4) (–3, 8)		A1 (dep on M2)
					Total 5 marks

7.

(i)		(30, 2)	1	B1 cao
(ii)		(300, 0)	1	B1 cao
				Total 2 marks

8.

	$(\text{fg}(k)=)\frac{3k+1}{2(3k+1)-4}$ oe or $\frac{3k+1}{2(3k+1)-4}=2$ oe or $(\text{fg}(k)=)\frac{3k+1}{6k-2}$ oe or $\frac{3k+1}{6k-2}=2$ oe or $x=2(2x-4)$ or $x=4x-8$ or $x=\frac{8}{3}$ oe		3	M1 for a correct expression for $\text{fg}(k)$ or $\text{fg}(x)$ or for $\text{f}(x)=2$ Allow x instead of k for all marks
	$3k+1=2(6k-2)$ oe or $3k+1=2(2(3k+1)-4)$ oe or $3k+1=12k-4$ oe or $3k+1=\frac{8}{3}$ oe			M1 dep on M1 for **correctly** removing the denominator to form a correct equation or for $\text{g}(k)=\frac{8}{3}$
	Working not required, so correct answer scores full marks (unless from obvious incorrect working)	$\frac{5}{9}$		A1 oe eg 0.55(555…) rounded or truncated or $0.\dot{5}$ (must show recurring)
				Total 3 marks

9.

(i)		(6, 7)	1	B1
(ii)		(2, –3)	1	B1
				Total 2 marks

10.

	$\left(\frac{dy}{dx}=\right)3\times4x^2-8\ (=12x^2-8)$		4	B2 for $3\times4x^2-8$ or $12x^2-8$ (with no other terms) (B1 for one term, ie $3\times4x^2$ or $12x^2$ or -8)
	$"12x^2-8"=\frac{1}{3}$			M1 for equating their initial derivative with the given gradient. Derivative must be a **quadratic** (dep on B1)
	Working not required, so correct answer scores full marks (unless from obvious incorrect working)	$\pm\frac{5}{6}$		A1oe Ignore y values Allow $\pm0.83(333\ldots)$ or $\pm\sqrt{\frac{25}{36}}$ oe
				Total 4 marks

11.

(a)		$(a=)-4$ $(b=)6$	2	B1 for $(a=)-4$ B1 for $(b=)6$
(b)		$(p=)3$ $(q=)45$	2	B1 for $(p=)3$ B1 for $(q=)45$
				Total 4 marks

12.

	$(\frac{ds}{dt}=)\ 6t^2-10t+6$		4	M1 at least 2 terms correct
	$(\frac{dv}{dt}=)12t-10$			M1ft ft from a 3 term quadratic
	"$12t-10$" = 5			M1ft ft dep on previous M1 awarded
	Working not required, so correct answer scores full marks (unless from obvious incorrect working)	1.25		A1oe
				Total 4 marks

13.

(a)		4.5	1	B1oe	$4.5, x = 4.5, x \neq 4.5$ Allow anything with 4.5, $\frac{9}{2}$ or $4\frac{1}{2}$ apart from $x < 4.5, x > 4.5, x \leq 4.5, x \geq 4.5$
(b)	$(g(4)) = \frac{5}{2\times4-9}(=-5)$ **or** $5\left(\frac{5}{2\times4-9}\right)+7$ oe		2	M1	
	Working not required, so correct answer scores full marks (unless from obvious incorrect working)	–18		A1	
(c)	$(y=)3(x^2-4x)+.....$ **or** $y=3(x^2-4x+.....)$ where ….can be number(s) or nothing		4	M1	**or** $3x^2-12x+(8-y)=0$oe
	$(y=)3(x-2)^2.....$ **or** $y=3[(x-2)^2....]$ could have: $y-8=3[(x-2)^2....]$ oe			M1	**or** $(x=)\frac{12\pm\sqrt{144-12(8-y)}}{6}$ may have + rather than ±
	$(x-2)^2=\frac{y+4}{3}$ oe or an answer of $2\pm\sqrt{\frac{4+x}{3}}$			M1	**or** $(x=)2\pm\sqrt{\frac{4+y}{3}}$ may have + rather than ±
	Working not required, so correct answer scores full marks (unless from obvious incorrect working)	$2+\sqrt{\frac{x+4}{3}}$		A1	oe eg $2+\frac{\sqrt{12+3x}}{3}$
Allow candidates to swap *x* and *y* (or other letter) at any stage when finding the inverse – but the answer must be in terms of *x*					
					Total 7 marks

14.

(a)			2	M1	for at least 2 of $12x^2$, $2x$, -20
		$12x^2 + 2x - 20$		A1	
(b)	$12x^2 + 2x - 20 = 4$ oe		4	M1	ft, for equating their dy/dx to 4
	$12x^2 + 2x - 24 (= 0)$ **or** $6x^2 + x - 12 (= 0)$			M1	(dep on M1) ft their dy/dx in the form $ax^2 + bx (+ c)$
	eg $(6x - 8)(2x + 3) (= 0)$ **or** $(3x - 4)(2x + 3) (= 0)$ **or** $x = \frac{-2\pm\sqrt{(2)^2-(4\times12\times-24)}}{2\times12}$			M1	for solving their three-term quadratic equation using any correct method - if factorising, allow brackets which expanded give 2 out of 3 terms correct (if using formula or completing the square allow one sign error and some simplification – allow as far as eg $\frac{-2\pm\sqrt{4+1152}}{24}$ oe)
	Working required	$\frac{4}{3}, -\frac{3}{2}$		A1	(dep on M2) oe, allow 1.33(3...) for $\frac{4}{3}$, both values – isw any attempt to find *y* coordinates
					Total 6 marks

15.

(a)		2.5	1	B1 oe
(b)	(gh(x)=) $\frac{11}{2(x^2+4)-5}(=1)$		3	M1
	$11-3=2x^2$ oe eg $x^2=4$ **or** $2x^2-8=0$ **or** $x^2-4=0$			M1 correct expansion and rearrangement with x term on one side and number terms the other side **or** all terms on one side in an equation
	Correct answer scores full marks (unless from obvious incorrect working)	2		A1 cao, an answer of ±2 gains M2 only If no other marks awarded, award SCB1 for answer of 2.2 oe
				Total 4 marks

16.

(a)		(10, 5)	1	B1	cao
(b)		(2, 5)	1	B1	cao
					Total 2 marks

17.

(a)(i)			(3, 10)	1	B1	
(ii)			(3, −2)	1	B1	
(iii)			(−3, 5)	1	B1	
(b)	$(x\pm 2)$	$(x+3.5\pm 2)$..... or $\left(x+\frac{7}{2}\pm 2\right)$...		4	M1	for sight or use of $(x\pm 2)$ or $(x+1.5)$ or $(x+5.5)$
	$(x-2)^2+7(x-2)+20$	$(x+3.5-2)^2-3.5^2+20$ or $(x+1.5)^2+7.75$			M1	for correct substitution or correct use of $(x-2)$ for x into **L**
	$x^2-4x+4+7x-14+20$	$x^2+3x+2.25-12.25+20$ or $x^2+3x+2.25+7.75$			M1	dep on M2 for expanding brackets **correctly**
	Correct answer scores full marks (unless from obvious incorrect working)		$x^2+3x+10$		A1	
						Total 7 marks

18.

(a)	$3x^2$ or $-2\times2x$ or $-4x$ or -9 oe		2	M1	for differentiating one term correctly
		$3x^2-4x-9$		A1	for a correct expression Allow $3x^2-2\times2x-9$
(b)	$(x=)\dfrac{4\pm\sqrt{(-4)^2-(4\times3\times-9)}}{2\times3}$ **or** $3\left[\left(x-\dfrac{2}{3}\right)^2-\left(\dfrac{2}{3}\right)^2\right]-9(=0)$		4	M1	for finding the critical values for a 3-term quadratic using any correct method - if using formula or completing the square allow one sign error and some simplification – allow as far as eg $\dfrac{4\pm\sqrt{16+108}}{6}$ oe **or** eg $3\left(x-\dfrac{2}{3}\right)^2-10\dfrac{1}{3}$ oe)
		-1.19 and 2.52		A1	for critical values of -1.19 **and** 2.52 or better (for this A1 mark allow -1.2 or -1.18 **and** 2.5 **or** $\dfrac{2\pm\sqrt{31}}{3}$ oe)
		$x<-1.19$		A1	awrt -1.19
		$x>2.52$		A1	awrt 2.52
					Total 6 marks

19.

	Eg $(2x+1)^2+x(2x+1)=7$	eg $y^2+\left(\dfrac{y-1}{2}\right)y=7$		5	M1 for substitution of $y=\pm2x\pm1$ (or $x=\dfrac{\pm y\pm1}{2}$) into $y^2+xy=7$ to obtain an equation in x only (or y only)
	E.g. $6x^2+5x-6(=0)$ $6x^2+5x=6$	E.g. $3y^2-y-14(=0)$ $3y^2-y=14$			M1ft dep on previous M1 for multiplying out and collecting terms, forming a three term quadratic in any form of $ax^2+bx+c\,(=0)$ where at least 2 coefficients (a or b or c) are correct
	E.g. $(2x+3)(3x-2)(=0)$ or $x=\dfrac{-5\pm\sqrt{5^2-4\times6\times-6}}{2\times6}$ or $\left(x+\dfrac{5}{12}\right)^2-\left(\dfrac{5}{12}\right)^2=1$ $\left(x=-\dfrac{3}{2}\text{ and }x=\dfrac{2}{3}\right)$	E.g. $(y+2)(3y-7)(=0)$ or $y=\dfrac{-(-1)\pm\sqrt{(-1)^2-4\times3\times-14}}{2\times3}$ or $\left(y-\dfrac{1}{6}\right)^2-\left(\dfrac{1}{6}\right)^2=\dfrac{14}{3}$ $\left(y=-2\text{ and }y=\dfrac{7}{3}\right)$			M1ft dep on first M1 method to solve **their** 3 term quadratic using any correct method (allow one sign error and some simplification – allow as far as eg $\dfrac{-5\pm\sqrt{25+144}}{12}$ **or** $\dfrac{1\pm\sqrt{1+168}}{6}$ or if factorising allow brackets which expanded give 2 out of 3 terms correct) **or** correct values for x **or** correct values for y Accept $(x=)$ 0.6(66..) rounded or truncated or $(y=)$ 2.3(33…)
	$y=2\left(\text{"}-\dfrac{3}{2}\text{"}\right)+1(=-2)$ **and** $y=2\left(\text{"}\dfrac{2}{3}\text{"}\right)+1\left(=\dfrac{7}{3}\right)$	$-2=2x+1$ or $x=-\dfrac{3}{2}$ **and** $\dfrac{7}{3}=2x+1$ or $x=\dfrac{2}{3}$			M1ft dep on previous M1 for substituting **their** 2 found values of x or y into one of the two given equations **or** fully correct values for the other variable (correct labels for x / y)

20.

(a)		$\frac{k}{x}$	1	B1 allow kx^{-1}
(b)(i)		-46	1	B1 cao
(ii)	$\frac{3\left(2-3x^4\right)}{2-\left(2-3x^4\right)}$ or $\frac{6-9x^4}{2-2+3x^4}$ oe or $\frac{6-9x^4}{3x^4}$ oe		2	M1
	Correct answer scores full marks (unless from obvious incorrect working)	$\frac{2-3x^4}{x^4}$		A1 allow $\frac{2}{x^4}-3$ oe
				Total 4 marks

21.

(a)		-0.5	1	B1 oe eg $-\frac{1}{2}, \frac{-1}{2}, \frac{1}{-2}, -1/2$
(b)	$(3x-5)y=2$ **or** $(3y-5)x=2$ **or** $3xy-5y=2$ **or** $3xy-5x=2$ oe or $3y-5=\frac{2}{x}$ **or** $3x-5=\frac{2}{y}$ oe		2	M1 remove denominator or get to the stage $3y-5=\frac{2}{x}$ or $3x-5=\frac{2}{y}$
	Correct answer scores full marks (unless from obvious incorrect working)	$\frac{2+5x}{3x}$		A1oe eg $\frac{2}{3x}+\frac{5}{3}$ or $\frac{\frac{2}{x}+5}{3}$ **must be in terms of x**
(c)	$5\left(x^2-4x\right)$.....**or** $5\left(x^2-4x.....\right)$ **or** $5(x-2)^2\ldots$		3	M1
	$5\left[\left(x-2\right)^2-\left(-2\right)^2\right]$.....**or** $5\left[\left(x-2\right)^2-\left(-2\right)^2.....\right]$ **or** $5(x-2)^2-20$ ..... **or** $5\left[\left(x-2\right)^2+\frac{3}{5}\right]$			M1 $(-2)^2$ can be 2^2 or 4 or $\left(\pm\frac{4}{2}\right)^2$
	Correct answer scores full marks (unless from obvious incorrect working)	$5\left(x-2\right)^2+3$		A1
				Total 6 marks

22.

	$y=3\left(x^2-4x\right)+7$ **or** $y=3\left(x^2-4x+\frac{7}{3}\right)$ or $\frac{y-7}{3}=x^2-4x$ or $y=3(x-2)^2$.....		4	M1	for a correct equation for a first step to complete the square
	eg $y=3\left((x-2)^2-2^2\right)+7$ **or** $y=3\left((x-2)^2-2^2+\frac{7}{3}\right)$ **or** $y=3(x-2)^2-5$ oe or			M1	
	$(x-2)^2=\frac{y+5}{3}$ oe eg $(x-2)^2=\frac{y-7}{3}+4$ or $x-2=(\pm)\sqrt{\frac{y+5}{3}}$ oe			M1	
	Correct answer scores full marks (unless from obvious incorrect working)	$2-\sqrt{\frac{x+5}{3}}$		A1 oe	NB: note only negative square root. Must be in terms of x **any equivalent form**
	Note: Allow candidates to swap x and y when finding the inverse				**Total 4 marks**
t	$3x^2-12x+(7-y)=0$		4	M1	for a correct first step
	$(x=)\frac{12\pm\sqrt{144-12(7-y)}}{6}$			M1	
	$(x=)2\pm\sqrt{\frac{60+12y}{36}}$ oe			M1	
	Correct answer scores full marks (unless from obvious incorrect working)	$2-\sqrt{\frac{x+5}{3}}$		A1 oe	NB: note only negative square root. Must be in terms of x **any equivalent form**
					Total 4 marks

23.

(i)		(−4, 7)	1	B1
(ii)		(5, 10)	1	B1
				Total 2 marks

24.

(a)(i)		(−6, 1)	2	B1
(ii)		(−2, −4)		B1
(b)	(−1, 6), (3, −2), (7, 6)	Fully correct graph	2	B2 for a fully correct graph (B1 for a V shape with least value at (3, −2))
(c)		−3, 4	2	B2 for 2 correct values in any order (B1 for 1 correct value)
				Total 6 marks

25.

(a)	$(x-3)^2$ or $(3-x)^2$ or $(y-3)^2$ or $(3-y)^2$		4	M1	
	14 or – 14			M1	As part of an expression in x or y or an equation in x and y
	$3\pm\sqrt{14-x}$ or $3\pm\sqrt{14-y}$			M1	Can be ± or – or +
		$3+\sqrt{14-x}$		A1	oe must be in x
alt (a)	Alternative method: $x^2-6x+(y-5)=0$ oe or $y^2-6y+(x-5)=0$ oe		4	M1	rearrange to form a quadratic in x or y terms can be in any order but must be in an equation equal to zero
	$y=\frac{6\pm\sqrt{36-4(x-5)}}{2}$ or $x=\frac{6\pm\sqrt{36-4(y-5)}}{2}$			M1	correct substitution into quadratic formula
	$3\pm\sqrt{14-x}$ or $3\pm\sqrt{14-y}$			M1	Can be ± or – or +
		$3+\sqrt{14-x}$		A1	oe must be in x
(b)		$x \leqslant 14$	1	B1	oe **must** ft from part (a) dep on an answer in correct form
					Total 5 marks

26.

	Line drawn at (2, 1) with a positive gradient that does not intersect the curve at any other point.		3	M1 for a tangent drawn at $x = 2$
				M1 (dep M1) for a correct method to work out the gradient of the tangent.
		1.5 to 3		A1 for 1.5 to 3 accept answers in the range 1.5 – 3 so long as a tangent at $x = 2$ has been drawn.
				Total 3 marks

27.

	$x^2-12x+25$		4	M1 for substituting g(x) into f(x)
	$(x-6)^2-6^2(+25)$ **or** $(x-6)^2-11$ **or** $x^2-12x+(25-y)=0$ oe **or** $y^2-12y+(25-x)=0$ oe			M1 ft (dep on M1) for a correct first step in order to complete the square. Allow y in place of x. **or** Correctly setting up an equation = 0
	$(x-6)^2=y+11$ **or** $(y-6)^2=x+11$ **or** $x=\frac{12\pm\sqrt{44-4(25-y)}}{2}$ oe or $x=6\pm\sqrt{11+y}$			M1 ft (dep on M2) for a correct rearrangement for their completed the square quadratic **or** correctly substituting into the quadratic formula (allow just + or just – instead of $\pm$) Allow same equations with x and y swapped
		$6-\sqrt{11+x}$		A1 oe must be in terms of x and have minus only before the square root.
				Total 4 marks

28.

(a)			5	1	B1 cao
(b)	$y(x-6)=2x$ or $yx-6y=2x$	$x(y-6)=2y$ or $xy-6x=2y$		3	M1 for multiplying the denominator
	$x(y-2)=6y$	$y(x-2)=6x$			M1 for isolating the x or y terms **and** factorising
			$\frac{6x}{x-2}$		A1 accept $\frac{-6x}{2-x}$ (must be a function of x)
					Total 4 marks

29.

(i)		$(s+2, t)$	1	B1oe accept $(2+s, t)$
(ii)		$(s, 3t)$	1	B1oe accept $(s, 3\times t)$ or $(s, t\times 3)$
				Total 2 marks