Pearson Edexcel

Mark Scheme (Results)

January 2022

Pearson Edexcel International GCSE
Mathematics A (4MA1)
Paper 1H

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General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme.
  Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

- **Types of mark**
  - M marks: method marks
  - A marks: accuracy marks
  - B marks: unconditional accuracy marks (independent of M marks)
- **Abbreviations**
  - cao – correct answer only
  - ft – follow through
  - isw – ignore subsequent working
  - SC - special case

- oe – or equivalent (and appropriate)
- dep – dependent
- indep – independent
- awrt – answer which rounds to
- eeoo – each error or omission

- **No working**

  If no working is shown then correct answers normally score full marks

  If no working is shown then incorrect (even though nearly correct) answers score no marks.

- **With working**

  If there is a wrong answer indicated on the answer line always check the working in the body of the script (and on any diagrams), and award any marks appropriate from the mark scheme.

  If it is clear from the working that the "correct" answer has been obtained from incorrect working, award 0 marks.

  If a candidate misreads a number from the question. Eg. Uses 252 instead of 255; method marks may be awarded provided the question has not been simplified. Examiners should send any instance of a suspected misread to review. If there is a choice of methods shown, mark the method that leads to the answer on the answer line; where no answer is given on the answer line, award the lowest mark from the methods shown.

  If there is no answer on the answer line then check the working for an obvious answer.

- **Ignoring subsequent work**

  It is appropriate to ignore subsequent work when the additional work does not change the answer in a way that is inappropriate for the question: eg. Incorrect cancelling of a fraction that would otherwise be correct.

  It is not appropriate to ignore subsequent work when the additional work essentially makes the answer incorrect eg algebra.

  Transcription errors occur when candidates present a correct answer in working, and write it incorrectly on the answer line; mark the correct answer.

- **Parts of questions**

  Unless allowed by the mark scheme, the marks allocated to one part of the question CANNOT be awarded to another.

International GCSE Maths

Apart from questions 18, 19, 22 and 24, the correct answer, unless clearly obtained by an incorrect method, should be taken to imply a correct method.

Q		Working	Answer	Mark	Notes
1	(a)		a^{11}	1	B1
	(b)		w^{12}	1	B1
	(c)		$64x^{10}y^{6}$	2	B2 if not B2 then award B1 for 2 correct parts as part of a product eg $kx^{10}y^{6}$ where $k \neq 64$ **or** $64x^{k}y^{6}$ where $k \neq 10$ **or** $64x^{10}y^{k}$ where $k \neq 6$
	(d)	$c + 8v = t^3$		2	M1
			$t = \sqrt[3]{c+8v}$		A1 oe SCB1 for an answer of $t = \frac{c+8v}{3}$ oe
					Total 6 marks

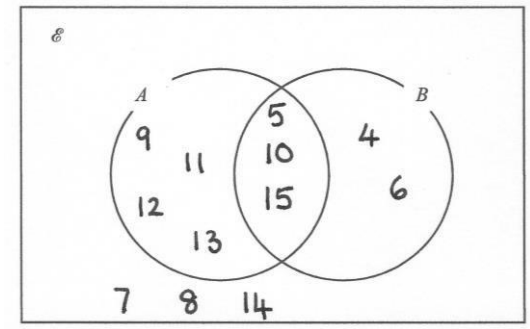
2	196 ÷ (9 – 5) (= 49) oe		3	M1
	3 × "49"			M1
		147		A1 SCB1 for an answer from 34.5 – 34.6 **or** an answer of 42
				Total 3 marks

3	eg $\sin 65 = \frac{AB}{8.4}$ **or** $\frac{AB}{\sin 65} = \frac{8.4}{\sin 90}$		3	M1	for setting up a trig equation in *AB*
	eg $(AB =)\ 8.4\sin 65$ **or** $(AB =)\frac{8.4\sin 65}{\sin 90}$			M1	for a complete method
		7.61		A1	accept 7.61 – 7.613
					Total 3 marks

4	eg $\frac{2}{5} \times 150 (= 60)$ **or** eg 0.32 × 150 (= 48)		5	M1	for finding the number of small mugs **or** number of medium mugs
	eg 150 – "60" – "48" (= 42)			M1	for finding the number of large mugs
	eg "60" × 8.50 + "48"× 11.20 + "42" × 14.20(= 1644) **or** 510 + 537.6 + 596.4 (= 1644)			M1	for working out the income, Profit = 504 implies M3
	eg $\frac{"1644" - 1140}{1140} \times 100$ **or** $\frac{"1644"}{1140} \times 100 - 100$			M1	(indep) for a complete method to find the percentage profit for **their total income** (must be greater than 1140) An answer of 144 implies M4
		44		A1	44 or better (44.2105…)
					Total 5 marks

5	(a)		(5), 8, 8, 20, *x*, (24)	3	B3 for (5), 8, 8, 20, *x*, (24) where *x* = 21 **or** 22 **or** 23 (B2 for (5), 8, 8, 20, *x*, (24) where *x* is blank or **any** value other than 21, 22 or 23) (B1 for a list with a median of 14 **or** a mode of 8 **or** the 3rd and 4th cards having a sum of 28 (ignoring other cards))
	(b)	eg 5 × 21 (= 105) **or** 6 × 23 (= 138)		3	M1
		eg 6 × 23 – 5 × 21			M1
			33		A1
					Total 6 marks

6	(a)	$5x \le 2+7$ **or** $5x \le 9$ **or** $\frac{5x}{5} - \frac{7}{5} \le \frac{2}{5}$ oe		2	M1	allow any sign instead of ≤ **or** for an answer of 1.8 oe **or** x and 1.8 oe with the incorrect sign
			$x \le 1.8$		A1	oe
	(b)(i)	$(y \pm 7)(y \pm 5)$		2	M1	for $(y \pm 7)(y \pm 5)$ **or** $(y + a)(y + b)$ where $ab = -35$ **or** $a + b = -2$
			$(y - 7)(y + 5)$		A1	isw if student goes on to solve the equation in this part
	(ii)		7, −5	1	B1ft	answer must ft from their $(y + a)(y + b)$ in (b)(i). Award B0 for 7, −5 if no marks scored in (i)
						Total 5 marks

7			3	B3	all 4 parts of diagram correct (B2 for 2 or 3 parts correct) (B1 for 1 part correct) SCB1 if no marks scored, award B1 if 4,6 in the section $A \cap B'$ and 9, 11, 12, 13 in the section $A' \cap B$
					Total 3 marks

8	$12.6 \times 10^{(-24+145)}$ or 12.6×10^{121} or 1.26×10^{n}		2	M1
		1.26×10^{122}		A1 allow 1.3×10^{122}
				Total 2 marks

9	$17.5^2 - 14^2$ (= 110.25)		4	M1	or for use of cosine rule to find one of the angles eg $28^2 = 17.5^2 + 17.5^2 - 2 \times 17.5 \times 17.5 \times \cos A$ **or** eg $\cos B = \frac{14}{17.5}$
	$\sqrt{17.5^2 - 14^2}$ (=10.5)			M1	**or** for rearranging the cosine rule to eg $\cos A = \frac{17.5^2 + 17.5^2 - 28^2}{2 \times 17.5 \times 17.5}$ (A = 106.26...) **or** eg $B = \cos^{-1}(\frac{14}{17.5})$ (= 36.86...)
	0.5 × 28 × "10.5" oe			M1	**or** for 0.5 × 17.5 × 17.5 × sin106.26... oe eg 0.5 × 17.5 × 28 × sin36.86... [clear use of Heron's formula: M1 for S = 0.5(17.5 + 17.5 + 28)(=31.5) M2 for $\sqrt{\text{"31.5"}(\text{"31.5"} - 17.5)^2 (\text{"31.5"} - 28)}$ oe]
		147		A1	accept awrt 147
					Total 4 marks

10	(a)	eg $2y = -7x(+10)$		2	M1	for $2y = -7x(+10)$ **or** an answer of $-3.5x$ oe **or** an answer of 3.5 oe
			-3.5		A1	oe
	(b)		(0, 5)	1	B1	cao
						Total 3 marks

11	eg $200\,000 \times 0.018$ (= 3600) **or** $200\,000 \times 1.018$ (= 203 600)		3	M1	for method to find 1.8% or 101.8% of 200 000
	eg $\sqrt{209\ 754 \div \text{“}203\ 600\text{”}}$ (= 1.015000…)			M1	for a complete method to find the multiplier for the compound interest for 2nd and 3rd year
		1.5		A1	or better eg 1.500045971…
					Total 3 marks

12	(a)		7, 33, 57, 71, 78, 80	1	B1	
	(b)			2	B2	Fully correct cf graph – points at ends of intervals and joined with curve or line segments. If not B2 then B1(ft from a table with only one arithmetic error) for 5 or 6 of their points at ends of intervals and joined with curve or line segments **OR** for 5 or 6 points plotted correct at ends of intervals not joined **OR** for 5 or 6 points from table plotted consistently within each interval (not at upper ends of intervals) at their correct heights and joined with smooth curve or line segments.
	(c)		21 – 24	1	B1ft	any value in range or ft their cf curve
	(d)			2	M1ft	eg reading of 72 – 74 or 6 – 8 could be seen as the numerator of a fraction ft their cf graph
			$\frac{8}{80}$		A1ft	oe, ft their cf graph fractional answers must have an integer numerator and denominator
						Total 6 marks

13 (a)	$5x(x+2) = 5x^2 + 10x$ **or** $(x+2)(3x-4) = 3x^2 - 4x + 6x - 8 (= 3x^2 + 2x - 8)$ **or** $5x(3x-4) = 15x^2 - 20x$		3	M1	for a correct intention to multiply all 3 factors by starting to multiply 2 factors only, allow one error
	eg $[(5x^2 + 10x)(3x-4) =] \; 15x^3 - 20x^2 + 30x^2 - 40x$ **or** $[5x(3x^2 + 2x - 8) =] \; 15x^3 + 10x^2 - 40x$ **or** $[(x+2)(15x^2 - 20x) =] \; 15x^3 - 20x^2 + 30x^2 - 40x$			M1	(dep)ft for expanding by the third factor, allow one error (some may do the expansion in one stage and will get to $15x^3 - 20x^2 + 30x^2 - 40x$ without firstly expanding two factors, allow two errors)
		$15x^3 + 10x^2 - 40x$		A1	isw correct factorisation eg $5(3x^3 + 2x^2 - 8x)$ do not isw incorrect factorisation eg $15x^3 + 10x^2 - 40x = 3x^3 + 2x^2 - 8x$

(b)	$\left(\frac{2w^2}{y^5}\right)^{-3}$ or $\left(\frac{y^{20}}{16w^8}\right)^{\frac{3}{4}}$ or $\left(\frac{4096w^{24}}{y^{60}}\right)^{-\frac{1}{4}}$		3	M1 for one of fourth rooting or reciprocating or cubing
	$\left(\frac{8w^6}{y^{15}}\right)^{-1}$ or $\frac{2^{-3}w^{-6}}{y^{-15}}$ or $\frac{\frac{1}{8}w^{-6}}{y^{-15}}$ or $\left(\frac{y^5}{2w^2}\right)^3$ or $\left(\frac{y^{60}}{4096w^{24}}\right)^{\frac{1}{4}}$ or $\frac{0.125y^{15}}{w^6}$ or $\frac{0.125w^{-6}}{y^{-15}}$ or $\frac{0.125}{y^{-15}w^6}$ oe			M1 for two of fourth rooting or reciprocating or cubing
		$\frac{y^{15}}{8w^6}$		A1 allow $\frac{y^{15}}{8w^6}$ or $\frac{y^{15}w^{-6}}{8}$ or $0.125y^{15}w^{-6}$ or $\frac{1}{8}y^{15}w^{-6}$ or $\frac{w^{-6}}{8y^{-15}}$ or $\frac{1}{8y^{-15}w^6}$
	ALTERNATIVE			
			3	M2 for 2 correct terms (M1 for 1 correct term)
		$\frac{y^{15}}{8w^6}$		A1 allow $\frac{y^{15}}{8w^6}$ or $\frac{y^{15}w^{-6}}{8}$ or $0.125y^{15}w^{-6}$ or $\frac{1}{8}y^{15}w^{-6}$ or $\frac{w^{-6}}{8y^{-15}}$ or $\frac{1}{8y^{-15}w^6}$
				Total 6 marks

14 (a)		$\frac{5}{12}$ $\frac{8}{15}$ $\frac{7}{15}$ $\frac{8}{15}$ $\frac{7}{15}$	2	B2	for all correct probabilities $\frac{5}{12}, \frac{8}{15}, \frac{7}{15}, \frac{8}{15}, \frac{7}{15}$
				(B1	for $\frac{5}{12}$ or $\frac{8}{15}, \frac{7}{15}, \frac{8}{15}, \frac{7}{15}$)
					oe eg for $\frac{5}{12}$ accept 0.41(666…) or 0.42, for $\frac{8}{15}$ accept 0.53(333…) or 0.53, for $\frac{7}{15}$ accept 0.46(666…) or 0.47
	(b) $\frac{7}{12} \times \frac{8}{15}$		2	M1	ft their tree diagram
		$\frac{14}{45}$		A1	oe eg $\frac{56}{180}$ or 0.31(111...) or 31(.111…)%
					Total 4 marks

15	eg $40 = \frac{k}{1.5^2}$ **or** $k = 90$ **or** $\frac{C^2}{1.5^2} = \frac{40}{1000} (= 0.04)$ **or** $(C^2 =) 1.5^2 \times \frac{40}{1000} (= 0.09)$ **or** $\frac{1.5^2}{C^2} = \frac{1000}{40} (= 25)$ **or** $(C^2 =) 1.5^2 \div \frac{1000}{40} (= 0.09)$		3	M1
	eg $(C =) \sqrt{\frac{"90"}{1000}}$ oe **or** $(C =) \sqrt{1.5^2 \times "0.04"}$ **or** $(C =) \sqrt{1.5^2 \div "25"}$ **or** $(C =) \sqrt{"0.09"}$			M1
		0.3		A1 oe, allow ±0.3 oe or −0.3 oe
				Total 3 marks

16	eg $\frac{55}{360} \times \pi \times d = 5$ **or** $\frac{55}{360} \times \pi \times 2 \times r = 5$ oe **OR** $\frac{360}{55} \times 5 (= 32.7...)$ oe		4	M1 for a correct equation for the diameter **or** radius **OR** for a method to find the circumference of the circle
	eg $d = \frac{5 \times 360}{55\pi} (= 10.4...)$ **or** $r = \frac{5 \times 360}{55 \times 2 \times \pi} (= 5.2...)$ **OR** $d = \frac{32.7...}{\pi} (= 10.4...)$ **or** $r = \frac{32.7...}{2 \times \pi} (= 5.2...)$			M1 for a method to work out the diameter **or** radius
	(area =) eg $\pi \times \left(\frac{"10.4..."}{2}\right)^2$ **or** $\pi \times$ "5.2..."^{2}			M1
		85.2		A1 allow 84.9 – 85.4
				Total 4 marks

17	eg $2^3 : 3^3$ **or** $8 : 27$ **or** $10^3 : 15^3$ oe **or** $\left(\frac{15}{10}\right)^3$ **or** $1.5^3 (= 3.375)$ **or** $\left(\frac{3}{2}\right)^3 \left(= \frac{27}{8}\right)$ **or** $\left(\frac{10}{15}\right)^3$ **or** $\left(\frac{2}{3}\right)^3 \left(= \frac{8}{27}\right)$		4	M1	for a correct ratio or scale factor for the volumes
	eg $\frac{1197}{27-8}$ **or** $\frac{1197}{15^3 - 10^3}$ **or** $\frac{27}{8}V_A - V_A = 1197$ oe **or** $\frac{19}{8}V_A = 1197$ oe			M1	for a correct method to find the value of 1 share of volume **or** for setting up a correct equation using the scale factor for the volumes
	eg $8 \times \frac{1197}{27-8}$ **or** $10^3 \times \frac{1197}{15^3 - 10^3}$ **or** $\frac{8}{19} \times 1197$ oe			M1	complete correct method to find volume of vase **A**
		504		A1	
					Total 4 marks

18	3.445, 3.455, 1.85, 1.95, 4.5, 5.5		3	B1	any one bound
	$(A =)\ 3.445 - \frac{1.95^2}{4.5}$			M1	$A = LB_W - \frac{(UB_x)^2}{LB_y}$ where $3.445 \leq LB_w < 3.45$, $1.9 < UB_x \leq 1.95$, $4.5 \leq LB_y < 5$
		2.6		A1	oe, (dep on M1), from correct figures (3.445, 1.95, 4.5)
					Total 3 marks

19	$3x^2+(2x-3)^2-x(2x-3)=5$	$3\left(\frac{y+3}{2}\right)^2+y^2-y\left(\frac{y+3}{2}\right)=5$		5	M1	Correct substitution of x for y (or y for x)
	$5x^2-9x+4(=0)$ oe **or** $5x^2-9x=-4$	$5y^2+12y+7(=0)$ oe **or** $5y^2+12y=-7$			M1	for a correct equation in the form $ax^2+bx+c\ (=0)$ oe **or** $ax^2+bx=-c$
	$(5x-4)(x-1)(=0)$ or $(x=)\frac{9\pm\sqrt{(-9)^2-4\times5\times4}}{2\times5}$ or $5\left[\left(x-\frac{9}{10}\right)^2-\left(\frac{9}{10}\right)^2\right]+4(=0)$ [leading to x values of 0.8 and 1]	$(5y+7)(y+1)(=0)$ or $(y=)\frac{-12\pm\sqrt{12^2-4\times5\times7}}{2\times5}$ or $5\left[\left(y+\frac{6}{5}\right)^2-\left(\frac{6}{5}\right)^2\right]+7(=0)$ [leading to y values of -1.4 and -1]			M1ft	dep on M1 for solving their 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 $\frac{9\pm\sqrt{81-80}}{10}$ oe **or** $\frac{-12\pm\sqrt{144-140}}{10}$ oe **or** $5\left(x-\frac{9}{10}\right)^2-\frac{1}{20}$ oe **or** $5\left(y+\frac{6}{5}\right)^2-\frac{1}{5}$ oe
	(y =) 2 × "0.8" – 3 **and** 2 × "1" – 3	(y =) $\frac{"-1.4"+3}{2}$ **and** $\frac{"-1"+3}{2}$			M1	dep on previous M1
			$x = 0.8$ & $y = -1.4$ / $x = 1$ & $y = -1$		A1	oe, for both solutions dep on M2
						Total 5 marks

20 (a)	$7 - 3(x^2 - 4x)$		3	M1	**or** for one of a, b or c correct
	$7 - 3[(x - 2)^2 - 4]$			M1	**or** for two of a, b or c correct
		$19 - 3(x - 2)^2$		A1	
(b)		(2, 19)	1	B1	ft their expression
					Total 4 marks

21	eg $(AM =)\sqrt{x^2+(4x)^2}\ (=\sqrt{17x^2}=x\sqrt{17})$ oe **or** $(AM =)\sqrt{(0.5x)^2+(2x)^2}\left(=\sqrt{\frac{17}{4}}x^2=x\frac{\sqrt{17}}{2}\right)$ oe **or** $(AM =)\sqrt{20^2+5^2}\ (=\sqrt{425}=5\sqrt{17})$ oe		5	M1 for a correct method to find *AM* as a numerical value or in algebraic form, must have brackets or recover
	Height of triangle eg $\sqrt{(2x)^2-x^2}\ (=\sqrt{3x^2}=x\sqrt{3})$ oe **or** $\sqrt{x^2-(0.5x)^2}\left(=\sqrt{\frac{3}{4}}x^2=x\frac{\sqrt{3}}{2}\right)$ oe **or** $\sqrt{10^2-5^2}\ (=\sqrt{75}=5\sqrt{3})$ oe			M1 for a correct method to find height of equilateral triangle *HJK* as a numerical value or in algebraic form
	eg $\tan MAJ=\frac{\sqrt{3}+2}{\sqrt{17}}$ **or** $\tan MAJ=\frac{\frac{\sqrt{3}}{2}+1}{\frac{\sqrt{17}}{2}}$ **or** $\tan MAJ=\frac{5\sqrt{3}+10}{5\sqrt{17}}$			M1 for correct values for the correct angle (no algebra) **or** for tan *MAJ* is given numerically in the range 0.9 – 0.91
	eg $\frac{(\sqrt{3}+2)}{\sqrt{17}}\times\frac{\sqrt{17}}{\sqrt{17}}\left(=\frac{\sqrt{51}+2\sqrt{17}}{17}\right)$			M1
		$\frac{\sqrt{68}+\sqrt{51}}{17}$		A1 or $\frac{\sqrt{51}+\sqrt{68}}{17}$
				Total 5 marks

22	eg $\overrightarrow{ON} = 8\mathbf{a} + \frac{1}{2}(6\mathbf{b} - 8\mathbf{a})(= 3\mathbf{b} + 4\mathbf{a})$ **or** $\overrightarrow{ON} = 6\mathbf{b} + \frac{1}{2}(-6\mathbf{b} + 8\mathbf{a})(= 3\mathbf{b} + 4\mathbf{a})$ **or** $\overrightarrow{NO} = \frac{1}{2}(8\mathbf{a} - 6\mathbf{b}) - 8\mathbf{a}(= -4\mathbf{a} - 3\mathbf{b})$ **or** $\overrightarrow{NO} = -6\mathbf{b} + \frac{1}{2}(6\mathbf{b} - 8\mathbf{a})(= -3\mathbf{b} - 4\mathbf{a})$ **or** $\overrightarrow{AM} = -8\mathbf{a} + \frac{1}{3}(6\mathbf{b})(= 2\mathbf{b} - 8\mathbf{a})$ **or** $\overrightarrow{AM} = -8\mathbf{a} + 6\mathbf{b} - \frac{2}{3}(6\mathbf{b})(= 2\mathbf{b} - 8\mathbf{a})$ **or** $\overrightarrow{MA} = 8\mathbf{a} - \frac{1}{3}(6\mathbf{b})(= 8\mathbf{a} - 2\mathbf{b})$ **or** $\overrightarrow{MA} = \frac{2}{3}(6\mathbf{b}) + 8\mathbf{a} - 6\mathbf{b}(= 8\mathbf{a} - 2\mathbf{b})$		5	M1	a correct expression for $\overrightarrow{ON}$ **or** $\overrightarrow{NO}$ **or** $\overrightarrow{AM}$ **or** $\overrightarrow{MA}$
	$\overrightarrow{OP} = \mu(3\mathbf{b} + 4\mathbf{a})$ and one of eg $\overrightarrow{OP} = 8\mathbf{a} + x(2\mathbf{b} - 8\mathbf{a})$ $(= (8 - 8x)\mathbf{a} + 2x\mathbf{b})$ or $\overrightarrow{OP} = 2\mathbf{b} + y(8\mathbf{a} - 2\mathbf{b})(= (2 - 2y)\mathbf{b} + 8y\mathbf{a})$			M2	oe (M1 for one correct expression for $\overrightarrow{OP}$) (where μ, x, y are scalars)
	eg $\frac{4}{3} = \frac{8y}{2 - 2y}$ **or** $\frac{4}{3} = \frac{8 - 8x}{2x}$ oe **or** $3\mu = 2x$ **and** $4\mu = 8 - 8x$ **or** $3\mu = 2 - 2y$ **and** $4\mu = 8y$			M1	A correct expression to find the position of P along ON **or** two correct simultaneous equations coming from the expressions for $\overrightarrow{OP}$
		$2\mathbf{a} + \frac{3}{2}\mathbf{b}$		A1	dep on M3, oe eg $2\mathbf{a} + 1.5\mathbf{b}$
					Total 5 marks

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

24	eg $-6 = 8a + 4b - 24 + 6$ **or** $8a + 4b = 12$ oe		6	M1	for substituting $x = 2$ and $y = -6$ into the equation for **C**
	$\left(\frac{dy}{dx} =\right) 3ax^2 + 2bx - 12$ oe			M1	at least 2 terms correct
	eg $16 = 12a + 4b - 12$ **or** $12a + 4b = 28$ oe			M1ft	(dep on previous M1) follow through their $\frac{dy}{dx}$
	$a = 4$ **and** $b = -5$			M1	for $a = 4$ **and** $b = -5$
	eg "4"$\times 3^3$ + "-5"$\times 3^2 - 12 \times 3 + 6$			M1ft	correctly substituting their a, their b and $x = 3$ into the equation for **C**
		33		A1	(dep on M3) allow (3, 33)
					Total 6 marks

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