Mark Scheme (Results)

Summer 2013

GCSE Mathematics Linked Pair Pilot
Methods in Mathematics (2MM01)
Foundation (Non Calculator) Paper 1H

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NOTES ON MARKING PRINCIPLES

1   All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.

2   Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.

3   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.

4   Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.

5   Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

6   Mark schemes will indicate within the table where, and which strands of QWC, are being assessed. The strands are as follows:

i) *ensure that text is legible and that spelling, punctuation and grammar are accurate so that meaning is clear*
    Comprehension and meaning is clear by using correct notation and labelling conventions.

ii*) select and use a form and style of writing appropriate to purpose and to complex subject matter*
    Reasoning, explanation or argument is correct and appropriately structured to convey mathematical reasoning.

iii) *organise information clearly and coherently, using specialist vocabulary when appropriate*.
    The mathematical methods and processes used are coherently and clearly organised and the appropriate mathematical vocabulary used.

7   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If working is crossed out and still legible, then it should be given any appropriate marks, as long as it has not been replaced by alternative work.

If it is clear from the working that the "correct" answer has been obtained from incorrect working, award 0 marks. Send the response to review, and discuss each of these situations with your Team Leader.

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

Any case of suspected misread loses A (and B) marks on that part, but can gain the M marks. Discuss each of these situations with your Team Leader.

If there is a choice of methods shown, then no marks should be awarded, unless the answer on the answer line makes clear the method that has been used.

8   Follow through marks

Follow through marks which involve a single stage calculation can be awarded without working since you can check the answer yourself, but if ambiguous do not award.

Follow through marks which involve more than one stage of calculation can only be awarded on sight of the relevant working, even if it appears obvious that there is only one way you could get the answer given.

9   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: e.g. 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 e.g. algebra.

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

10   Probability

Probability answers must be given a fractions, percentages or decimals. If a candidate gives a decimal equivalent to a probability, this should be written to at least 2 decimal places (unless tenths).

Incorrect notation should lose the accuracy marks, but be awarded any implied method marks.

If a probability answer is given on the answer line using both incorrect and correct notation, award the marks.

If a probability fraction is given then cancelled incorrectly, ignore the incorrectly cancelled answer.

11   Linear equations
Full marks can be gained if the solution alone is given on the answer line, or otherwise unambiguously indicated in working (without contradiction elsewhere). Where the correct solution only is shown substituted, but not identified as the solution, the accuracy mark is lost but any method marks can be awarded.

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

13   Range of answers
Unless otherwise stated, when an answer is given as a range (e.g 3.5 – 4.2) then this is inclusive of the end points (e.g 3.5, 4.2) and includes all numbers within the range (e.g 4, 4.1)

Guidance on the use of codes within this mark scheme
M1 – method mark A1 – accuracy mark B1 – Working mark C1 – communication mark QWC – quality of written communication oe – or equivalent cao – correct answer only ft – follow through sc – special case dep – dependent (on a previous mark or conclusion) indep – independent isw – ignore subsequent working

Paper: 5MM1H_01					
Question		Working	Answer	Mark	Notes
1	(a)		4	2	M1 $2 \times 5 + 3 \times -2$ or $10 - 6$ A1 cao
	(b)		50	2	M1 $2 \times 5 \times 5$ or 2×25 A1 cao
2	(a)		reason	1	B1 Eg. **yes** and any sentence that indicates that the number of outcomes for each letter is not evenly distributed **or** **no** and any sentence that indicates that the number of outcomes for each letter could have come from a fair spinner as there are only 40 outcomes **or** **don't know** and any sentence that indicates that there are insufficient outcomes (only 40) to be able to tell or don't know if the sides of the spinner are the same length
	(b)		$\dfrac{2}{40}$	2	M1 for $\dfrac{2}{n}$ for $n > 2$ or $\dfrac{n}{40}$ for $n < 40$ A1 $\dfrac{2}{40}$ oe

Question		Working	Answer	Mark	Notes
3			translation $\begin{pmatrix} 3 \\ 4 \end{pmatrix}$	2	B1 for translation B1 for $\begin{pmatrix} 3 \\ 4 \end{pmatrix}$ NB more than one transformation described scores no marks
4	(a)		$12xy$	1	B1 or $12yx$
	(b)		$2c - 4d$	1	B1 $2c - 4d$
	(c)	$a^9 \div a^3$ **or** $a^5 \times a^1$ **or** $a^2 \times a^4$	a^6	2	M1 a^{5+4-3} or a^{5+4} or a^9 seen A1 cao or M1 a^{4-3} or a or a^1 seen A1 cao or M1 a^{5-3} or a^2 seen A1 cao
	(d)	$2x^2 + 3x - 8x - 12$	$2x^2 - 5x - 12$	2	M1 for 3 out of no more than 4 terms correct with correct signs **or** the 4 terms $2x^2$, $3x$, $8x$ and 12 seen, ignoring signs A1 cao
	(e)		$3e(2f + 3e)$	2	M1 $3(2ef + 3e^2)$ or $e(6f + 9e)$ A1 $3e(2f + 3e)$ cao

Question	Working	Answer	Mark	Notes
5 (a)			4	B1 33 and 39 and no other numbers placed in the intersection B1 30 and 36 in set A or 31, 35 and 37 in set B B1 at least two of 32, 34, 38, 40 placed correctly B1 fully correct diagram
(b)		$\dfrac{2}{11}$ oe	1	B1 ft from candidate's Venn diagram
(c)		$\dfrac{7}{11}$ oe	1	B1 ft from candidate's Venn diagram

Paper: 5MM1H_01					
Question		**Working**	**Answer**	**Mark**	**Notes**
6		$150 \div 6$ or $\dfrac{1}{6} \times 150$	25	2	M1 $150 \div 6$ or $\dfrac{1}{6} \times 150$ A1 cao NB $\dfrac{25}{150}$ scores M1 A0
7	(a)		8.432	1	B1 cao
	(b)		4216	1	B1 cao
8			42cm^2	4	M1 for a correct method to find area of one triangle M1 for a fully correct method to find the shaded area A1 cao B1 (indep) for cm^2

Question		Working	Answer	Mark	Notes
9	(a)	$y = 3x + 5$ | x | -2 | -1 | 0 | 1 | 2 | 3 | | y | -1 | 2 | 5 | 8 | 11 | 14 |	Correct line from (-2,-1) to (3,14)	3	**(Table of values / calculation of values)** M1 for at least 2 correct attempts to find points by substituting values of x. M1 ft for plotting at least 2 of their points (any points plotted from their table must be correctly plotted) A1 for correct line between $x = –2$ and $x = 3$ **(No table of values)** M1 for at least 2 correct points with no more than 2 incorrect points M1 for at least 2 correct points (and no incorrect points) plotted **OR** line segment of $y = 3x + 5$ drawn A1 for correct line between $x = –2$ and $x = 3$ **(Use of y=mx+c)** M1 for line drawn with gradient of 3 **OR** line drawn with a y intercept of 5 M1 for line drawn with gradient of 3 **AND** line drawn with a y intercept of 5 A1 for correct line between $x = –2$ and $x = 3$ SC : B2 for the correct line from $x = 0$ to $x = 3$
	(*b)	$3 \times 6 + 5$ $= 18 + 5$ **or** $24 – 5=19$ $19 \div 3$	Correct explanation	2	M1 $3 \times 6 + 5$ **or** "18" + 5 **or** (6, 23) C1 for 23 seen and correct conclusion **or** M1 $24 – 5$ or "19" $\div$ 3 C1 for $\dfrac{19}{3}$ oe **or** 6.3... seen and correct conclusion

Question	Working	Answer	Mark	Notes
10	(see working below)	239.12	3	M1 for a complete method with relative place value correct. Condone 1 arithmetic error. Final addition not necessary. OR M1 for a complete grid with not more than 1 arithmetic error. Final addition not necessary (inside numbers) OR M1 for sight of a complete partitioning method. Condone 1 arithmetic error. Final addition not necessary. M1 (dep) for addition of all the appropriate elements of the calculation or digits 23912 . A1 cao

Working:

```
    427
     56 ×
   2562
  21350 +
  23912
```

```
      4   2   7
    2/0 1/0 3/5   5
  2
    2/4 1/2 4/2   6
  3
     9   1   2
```

400	20	7	×	20 000
20 000	1 000	350	50	2 400
2 400	120	42	6	1 000
				120
				350
				42 +
				23912

Question	Working	Answer	Mark	Notes
*11		"**two** angles are **equal** so the triangle is **isosceles**"	5	M1 for $6x - 10 + 4x + 8 + 5x + 2$ **or** $15x$ M1 for $6x - 10 + 4x + 8 + 5x + 2 = 180$ **or** $15x = 180$ **or** $(x =)180 \div 15$ A1 $x = 12$ M1 (ft from '12' if M2 scored) for $5 \times '12' + 2$ **or** $6 \times '12' - 10$ **or** $62(^{\circ})$ **or** $4 \times '12' + 8$ **or** $56(^{\circ})$ C1 both base angles as 62 **and two** angles are **equal** so the triangle is **isosceles** NB. $x = 12$ with no working scores M0M0A0 ; correct value of x from clear trial and improvement could gain M1M1A1 **OR** M1 $5x + 2 = 6x - 10$ **or** $2 + 10 = 6x - 5x$ A1 $x = 12$ M1 $5 \times 12 + 2$ **or** $6 \times 12 - 10$ **or** $62(^{\circ})$ **or** $4 \times 12 + 8$ **or** $56(^{\circ})$ M1 checking their angles add to 180°, "62"+"62"+"56"=180 C1 both base angles as 62 **and two** angles are **equal** so the triangle is **isosceles** **OR** M1 $4x + 8 = 5x + 2$ oe or $4x + 8 = 6x - 10$ A1 $x = 6$ **or** $x = 9$ M1 (dep) for substituting 'x' into one of the angles oe M1 for showing their angles do not sum to 180° C0

Question		Working	Answer	Mark	Notes
12	(a)	eg	$2^4 \times 5$	3	M1 for continual prime factorisation (at least first 2 steps correct) **or** first two stages of a factor tree correct. M1 for a fully correct factor tree or list 2,2,2,2,5 A1 for $2 \times 2 \times 2 \times 2 \times 5$ or $2^4 \times 5$ oe
	(b)		16	2	M1 for correct prime factorisation of 32 showing 2,2,2,2,2 (may be on factor tree) or 2^5 A1 cao OR List of all factors of 32 (1 and 32 may be omitted) (1),2,4,8,16,(32) **and** list of all factors of 80 (1 and 80 may be omitted) (1),2,4,5,8,10,16,20,40,(80) (may be shown as factor pairs) A1 cao SC B1 for 8 given as the final answer if M0 scored

Paper: 5MM1H_01					
Question		**Working**	**Answer**	**Mark**	**Notes**
13	(a)		$8n + 3$	2	B2 $8n+3$ oe (B1 $8n \pm k$ where $k \neq 3$)
	(b)	$46 - 3 \times 1, 46 - 3 \times 2, 46 - 3 \times 3$ $46 - 3, 46 - 6, 46 - 9$	43, 40, 37	2	M1 for correct substitution for any value of n, can be implied by one correct value of the sequence from 43, 40, 37 A1 for 43, 40, 37
14	(a)		1	1	B1
	(b)		$\dfrac{1}{16}$	1	B1
	(c)		4	1	B1

Question		Working	Answer	Mark	Notes
15			28	4	M1 for forming a correct equation , eg $2(3x + 5) = 10x – 2$ oe $3x + 5 = \dfrac{1}{2}(10x – 2)$ oe or $10x – 2 – (3x + 5) = 3x + 5$ oe M1 (dep) for dealing with brackets correctly **or** correct method to isolate all x terms on one side. A1 $x = 3$ B1 ft (dep on M1) for 28 SC: B3 for an answer of 14 if no previous marks scored
16	(a)		24	2	M1 for a correct method to calculate a scale factor or multiplier eg $10.5 \div 3.5 (=3)$ or $3.5 \div 10.5 (= 0.33...)$ or $8 \times 10.5 \div 3.5$ oe A1 cao
	(b)		16	2	M1 for a fully correct method to use a scale factor or multiplier to find *AC* or *AE* eg $12 \div 3$ (=4) or $12 \times 0.33...$or $12 \times \dfrac{1}{3}$ (=4) or $12 \div 10.5 \times 3.5$ or $12 \times 1.33...$

Question	Working	Answer	Mark	Notes
17	$(x - 6)(x + 4) = 0$ $(x - 6) = 0$ or $(x + 4) = 0$ OR $x = \dfrac{--2 \pm \sqrt{(-2)^2 - 4 \times 1 \times (-24)}}{2 \times 1}$ $= \dfrac{2 \pm \sqrt{100}}{2}$ OR $(x - 1)^2 - 25 = 0$ $(x - 1)^2 = 25$ $x - 1 = \pm 5$ $x = 1 \pm 5$	6, –4	3	M2 for $(x - 6)(x + 4)$ (M1 for $(x \pm 6)(x \pm 4)$) A1 cao 6 and –4 OR M1 for substitution into formula (condone incorrect signs) M1 $\dfrac{2 \pm \sqrt{100}}{2}$ oe A1 cao 6 and –4 OR M1 for $(x - 1)^2 - 1^2 - 24 \ (= 0)$ M1 for $x = 1 \pm \sqrt{25}$ A1 cao 6 and –4 OR Using Trial and Improvement: B3 Both solutions correct (B1 One solution correct)

Paper: 5MM1H_01					
Question		Working	Answer	Mark	Notes
18	(a)		1.2×10^7	1	B1
	(b)		0.00257	1	B1
	(c)	15600 + 4900 = 20500 OR $1.56 \times 10^4 + 0.49 \times 10^4$	2.05×10^4	2	M1 15600 + 4900 or 20500 or digits 205 seen A1 cao OR M1 $1.56 \times 10^4 + 0.49 \times 10^4$ or $15.6 \times 10^3 + 4.9 \times 10^3$ A1 cao

Paper: 5MM1H_01					
Question		Working	Answer	Mark	Notes
19	(a)		$\dfrac{5}{6}$ $\dfrac{5}{6}, \dfrac{1}{6}, \dfrac{5}{6}$	2	B1 $\dfrac{5}{6}$ B1 $\dfrac{5}{6}, \dfrac{1}{6}$ and $\dfrac{5}{6}$
	(b)		$\dfrac{10}{36}$	3	M1 $\dfrac{1}{6} \times \dfrac{"5"}{6}$ or $\dfrac{"5"}{6} \times \dfrac{"1"}{6}$ M1 $\dfrac{1}{6} \times \dfrac{"5"}{6} + \dfrac{"5"}{6} \times \dfrac{"1"}{6}$ or $\dfrac{"5"}{36} + \dfrac{"5"}{36}$ A1 oe or M1 $\dfrac{"5"}{6} \times \dfrac{"5"}{6}$ or $\dfrac{1}{6} \times \dfrac{1}{6}$ M1 $1 - (\dfrac{"5"}{6} \times \dfrac{"5"}{6} + \dfrac{1}{6} \times \dfrac{1}{6})$ A1 oe

Paper: 5MM1H_01				
Question	**Working**	**Answer**	**Mark**	**Notes**
*20	180 – (34 + 79) = 67 180 – 2 × 67 = 46 79 – 46 **or** 180 – (34 + 79) = 67 180 – 67 =113 180 – 113 − 34	33°	5	B1 BCA=34 or ABC=79 or could be seen on the diagram M1 180 – (34 + 79) or 180 – 113 or 67 seen M1 for 180 – 2 × "67" (= 46) **and** 79 – "46" C2(dep on M1) $CBF = 33°$ and all four reasons: **alternate segment theorem,** **angles** on a **straight line** add up to **180,** **angles** of an **isosceles** triangle are **equal** and **angles** in a **triangle** add up to **180** (C1 any one reason) **or** B1 BCA=34 or ABC=79 or could be seen on the diagram M1 180 – (34 + 79) or 180 – 113 or 67 seen M1 for 180 – "67"(=113) **and** 180 – 34 – "113" C2(dep on M1) $CBF = 33°$ and all four reasons **alternate segment theorem,** **angles** on a **straight line** add up to **180,** **angles** of an **isosceles** triangle are **equal** and **angles** in a **triangle** add up to **180** (C1 any one reason)

Paper: 5MM1H_01				
Question		**Working**	**Answer**	**Mark**	**Notes**

Question		Working	Answer	Mark	Notes
21	(a)		0.3	1	B1
	(b)		0.28	2	M1 0.7×0.4 A1 oe
22			Vertices at $(-6, 7)$ $(-3, 7)$ $(-3, 1)$	3	B3 fully correct (B2 correct orientation **and** correct size **or** two correct vertices) (B1 correct size **or** correct orientation **or** one correct vertex)
*23			Correct proof	4	M1 expands $(n-1)^2$ with at least three out of four terms correct **or** $n^2 - n - n + 1$ **or** $n^2 - 2n + 1$ M1 $n^2 - 1 + n^2 - n - n + 1$ **or** $2n^2 - 2n$ A1 $2(n^2 - n)$ **or** $2n(n-1)$ C1 (dep on M1) for conclusion $2 \times \text{`}(n^2 - n)\text{'}$ or $2 \times n \times \text{`}(n-1)\text{'}$ is always even OR M1 factorises $n^2 - 1$ correctly $(n-1)(n+1)$ M1 $(n-1)(n+1+n-1)$ A1 $2n(n-1)$ C1 (dep on M1) for conclusion $2 \times \text{`}(n^2 - n)\text{'}$ or $2 \times n \times \text{`}(n-1)\text{'}$ is always even

Question		Working	Answer	Mark	Notes
24	(a)		$\mathbf{b} - \mathbf{a}$	1	B1
	(b)		$\overrightarrow{BM} = \frac{1}{2}\overrightarrow{OC}$ hence parallel	4	B1 $\overrightarrow{OC} = \mathbf{a} + \mathbf{b}$ M1 $\overrightarrow{BM} = \overrightarrow{BC} + \overrightarrow{CM}$ oe or $\overrightarrow{BM} = \mathbf{a} + \frac{1}{2}("\mathbf{b} - \mathbf{a}")$ A1 $\frac{1}{2}(\mathbf{a} + \mathbf{b})$ C1 $\overrightarrow{BM} = \frac{1}{2}\overrightarrow{OC}$ hence parallel **or** B1 $\overrightarrow{OC} = \mathbf{a} + \mathbf{b}$ M1 $\overrightarrow{BM} = \overrightarrow{BD} + \overrightarrow{DM}$ oe or $\overrightarrow{BM} = \mathbf{b} - \frac{1}{2}("\mathbf{b} - \mathbf{a}")$ A1 $\frac{1}{2}(\mathbf{a} + \mathbf{b})$ C1 $\overrightarrow{BM} = \frac{1}{2}\overrightarrow{OC}$ hence parallel

Paper: 5MM1H_01					
Question		**Working**	**Answer**	**Mark**	**Notes**
25		B, not B + not B, B + BB OR $1 - $ not B $\times$ not B	$\dfrac{48}{90}$	4	B1 for $\dfrac{7}{9}$ or $\dfrac{3}{9}$ or $\dfrac{2}{9}$ (could be seen in working or on a tree diagram) M1 for $\dfrac{3}{10} \times \dfrac{7}{9}$ or $\dfrac{7}{10} \times \dfrac{3}{9}$ or $\dfrac{3}{10} \times \dfrac{2}{9}$ oe M1 for $\dfrac{3}{10} \times \dfrac{7}{9} + \dfrac{7}{10} \times \dfrac{3}{9} + \dfrac{3}{10} \times \dfrac{2}{9}$ oe A1 for $\dfrac{48}{90}$ oe **OR** B1 for $\dfrac{6}{9}$ M1 for $\dfrac{7}{10} \times \dfrac{6}{9}$ oe M1 for $1 - \dfrac{7}{10} \times \dfrac{6}{9}$ oe A1 for $\dfrac{48}{90}$ oe

Paper: 5MM1H_01					
Question		**Working**	**Answer**	**Mark**	**Notes**
25 (cont)		OR BB + BG + BW + GB + WB			**OR** B1 for $\frac{2}{9}$ or $\frac{5}{9}$ or $\frac{3}{9}$ (could be in working or on a tree diagram) M1 for $\frac{3}{10} \times \frac{2}{9}$ or $\frac{3}{10} \times \frac{5}{9}$ or $\frac{3}{10} \times \frac{2}{9}$ or $\frac{5}{10} \times \frac{3}{9}$ or $\frac{2}{10} \times \frac{3}{9}$ oe M1 for $\frac{3}{10} \times \frac{2}{9} + \frac{3}{10} \times \frac{5}{9} + \frac{3}{10} \times \frac{2}{9} + \frac{5}{10} \times \frac{3}{9} + \frac{2}{10} \times \frac{3}{9}$ oe A1 for $\frac{48}{90}$ oe
		OR 1 −(GG + GW + WG + WW)			**OR** B1 for $\frac{4}{9}$ or $\frac{2}{9}$ or $\frac{5}{9}$ or $\frac{1}{9}$ (could be in working or on a tree diagram) M1 for $\frac{5}{10} \times \frac{4}{9} + \frac{5}{10} \times \frac{2}{9} + \frac{2}{10} \times \frac{5}{9} + \frac{2}{10} \times \frac{1}{9}$ M1 for $1 - (\frac{20}{90} + \frac{10}{90} + \frac{10}{90} + \frac{2}{90})$ A1 for $\frac{48}{90}$ oe

Question		Working	Answer	Mark	Notes
25 (cont)		OR 1 − (Not B, Not B) B, not B + not B, B + BB			**OR** M2 $\quad 1 - \dfrac{7}{10} \times \dfrac{6}{9}$ or $1 - \dfrac{"42"}{90}$ (M1 $\dfrac{7}{10} \times \dfrac{6}{9}$ or $\dfrac{42}{90}$) A1 $\dfrac{48}{90}$ oe **SC: with replacement** B2 for $\quad \dfrac{51}{100}$ **OR** for example: B0 M1 for $\dfrac{3}{10} \times \dfrac{7}{10}$ or $\dfrac{7}{10} \times \dfrac{3}{10}$ or $\dfrac{3}{10} \times \dfrac{3}{10}$ oe M1 for $\dfrac{3}{10} \times \dfrac{7}{10} + \dfrac{7}{10} \times \dfrac{3}{10} + \dfrac{3}{10} \times \dfrac{3}{10}$ oe A0

Modifications to the mark scheme for Modified Large Print (MLP) papers.

Only mark scheme amendments are shown where the enlargement or modification of the paper requires a change in the mark scheme.

The following tolerances should be accepted on marking MLP papers, unless otherwise stated below:
Angles: ±5°
Measurements of length: ±5 mm

PAPER: 5MM1H_01			
Question		**Modification**	**Notes**
Q3		2 cm grid.	Standard mark scheme
Q4	(a)	x changed to e, y to f - MLP	B1 or 12fe
	(c)	a changed to p - MLP	M1 p^{5+4-3} or p^{5+4} or p^9 seen A1 cao or M1 p^{4-3} or p or p^1 seen A1 cao or M1 p^{5-3} or p^2 seen A1 cao
	(d)	x changed to y - MLP	M1 for 3 out of no more than 4 terms correct with correct signs **or** the 4 terms $2y^2$, $3y$, $8y$ and 12 seen, ignoring signs A1 cao
Q5		Diagram enlarged	Standard mark scheme
Q9		2 cm grid	Standard mark scheme

PAPER: 5MM1H_01			
Question		**Modification**	**Notes**
Q11		*x* changed to *y* – MLP	Standard mark scheme
Q15		*x* changed to *y* - MLP	
Q19		Diagram enlarged. Answer lines on the diagram are solid. Candidates are given the information: 'There are four spaces to fill.'	Standard mark scheme
Q22		2 cm grid. Original triangle labelled Triangle A. Enlargement given and labelled Triangle B. Question changed: 'Describe fully the single transformation that maps triangle A onto triangle B.'	Standard mark scheme
Q24		Vectors **a** and **b** are a larger size.	Standard mark scheme