Pearson Edexcel

Mark Scheme (Results)

November 2023

Pearson Edexcel International GCSE
In Mathematics A (4MA1)
Paper 2F

Edexcel and BTEC Qualifications

Edexcel and BTEC qualifications are awarded by Pearson, the UK's largest awarding body. We provide a wide range of qualifications including academic, vocational, occupational and specific programmes for employers. For further information visit our qualifications websites at www.edexcel.com or www.btec.co.uk. Alternatively, you can get in touch with us using the details on our contact us page at www.edexcel.com/contactus.

Pearson: helping people progress, everywhere

Pearson aspires to be the world's leading learning company. Our aim is to help everyone progress in their lives through education. We believe in every kind of learning, for all kinds of people, wherever they are in the world. We've been involved in education for over 150 years, and by working across 70 countries, in 100 languages, we have built an international reputation for our commitment to high standards and raising achievement through innovation in education. Find out more about how we can help you and your students at: www.pearson.com/uk

November 2023
Question Paper Log Number P73467A
Publications Code 4MA1_2F_MS_2311
All the material in this publication is copyright
© Pearson Education Ltd 2024

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.
- 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
- 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 mark the one that leads to the answer on the answer line. If there is no answer given then mark the method that gives the lowest mark and award this mark.
  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 in another.

International GCSE Maths					
Apart from questions 15, 20a, 22 (where the mark scheme states otherwise) the correct answer, unless clearly obtained from an incorrect method, should be taken to imply a correct method.					
Question	**Working**	**Answer**	**Mark**	**Notes**	
1 (a)		Twenty eight thousand one hundred (and) forty nine	1	B1	All must be in words – accept incorrect spelling if meaning is clear. Sometimes 'and' may be included in places it is not included here – please allow this. Allow words such as 'fourty' or 'thorty' or 'fourlity' for forty and similar words for other numbers
(b)		Kenya	1	B1	accept incorrect spelling if meaning is clear. Allow K or k or other shortened form of Kenya
(c)		80	1	B1	Eighty or tens or 8 tens or 8 ×10s or similar. (Not 8 tenths) accept incorrect spelling if meaning is clear.
(d)		16 000	1	B1	accept '16 thousand' or 'sixteen thousand'
					Total 4 marks

Question		Working	Answer	Mark	Notes
2	(a)		52	1	B1 Allow 'fifty two'
	(b)		1 full symbol and a half symbol	1	B1 The half symbol can be made of 2 quarter symbols. The half symbol can be the top 2 parts, the bottom 2 parts, the two left parts etc
	(c)		20	1	B1 Allow 'twenty'
	(d)			2	M1 for 56 : 48 **or** other correct ratio that is not in simplest form eg 14 : 12 or 3.5 : 3 **or** for 6 : 7 or $\frac{6}{7}$:1 or 0.85 : 1 or 0.86 : 1 or 1 : 1.16 or 1 : 1.17 oe or $\frac{7}{6}$
			7 : 6		A1 allow $1:\frac{6}{7}$ or 1 : 0.85 or 1 : 0.86 or 1 : 0.857… or $\frac{7}{6}$:1 or 1.16 : 1 or 1.17 : 1 or $1.166(...) : 1$ oe
					Total 5 marks

Question		Working	Answer	Mark	Notes
3	(a)		$\frac{3}{100}$	1	B1 $3/100$, 3/100 oe eg $\frac{6}{200}$, $\frac{9}{300}$, $\frac{30}{1000}$ etc
	(b)		90	1	B1 Allow 90%
	(c)		0.204, 0.24, 0.4, 0.408, 0.48	1	B1 oe eg 0.204, 0.240, 0.400, 0.408, 0.480 (this includes extra zero's after the correct decimal which is acceptable)
	(d)		1.63	1	B1 oe 1.63(000…)
					Total 4 marks

Question	Working	Answer	Mark	Notes
4			3	B1 For at least one correct conversion eg 800 (m) = 0.8 (km) or 2 (km) = 2000 (m) or 1.7 (km) = 1700 (m) or 6250 (m) = 6.25 (km)
	800 + "2000" + "1700" + x = 6250 oe **or** "0.8" + 2 + 1.7 + y = "6.25" oe **or** 6250 – 800 – "2000" – "1700" oe eg 800 + 2000 + 1700 = 4500, 6250 – "4500" **or** "6.25" – "0.8" – 2 – 1.7 oe eg '0.8' + 2 + 1.7 = 4.5, '6.25' – '4.5'			M1 For a correct equation in x or a correct calculation for x using their 2 *converted* values (but not original values throughout…some conversion must have been done)
	Working not required, so correct answer scores full marks (unless from obvious incorrect working)	1750		A1 An answer of 1.75 (or 1.75 km) or a choice of answers with no units ie 1.75 and 1750 scores 2 marks only (B1M1) 1750 m with 1.75 km on the answer line scores full marks
				Total 3 marks

Question		Working	Answer	Mark	Notes
5	(i)		a cross at the notch between ½ and 1	1	B1 A cross or other indication eg an arrow or large dot etc at the correct place.
	(ii)		a cross at 0	1	B1 A cross or other indication eg an arrow or large dot etc at the correct place.
					Total 2 marks

Question		Working	Answer	Mark	Notes
6	(a)		A right-angled triangle	1	B1 For a right angled triangle drawn.
	(b)		A rectangle with area 20 cm^2	2	B2 eg a rectangle with dimensions 2 cm by 10 cm or 4 cm by 5 cm or 2.5 cm by 8 cm etc (B1 for a rectangle without area 20 cm^2 or any shape with area 20 cm^2)
					Total 3 marks

Question		Working	Answer	Mark	Notes
7	(a)		16 30	1	B1 oe allow 16.30 or 16,30 or 16:30 allow 16:30pm
	(b)	1 hour 5 mins (allow 1.05 but not 105) or 15 + 50 (= 65) min for time from *B* to *C* **or** for 10 + 36 (= 46) oe for time from *C* to *P*		3	M1
		"*B* to *C* " – "*C* to *P* " eg "65" – "46" eg "1 hr 5 mins" – "46 mins"			M1ft dep on M1 awarded and "65" greater than "46"
		Working not required, so correct answer scores full marks (unless from obvious incorrect working)	19		A1 cao NB: 19 from 1.05 – 0.86 or 105 – 86 scores 0 marks
					Total 4 marks

Question		Working	Answer	Mark	Notes
8	(a)		32	1	B1
	(b)(i)	eg 180 – 125 or $\frac{360-2\times125}{2}$ or *JBC* = 55 (in working or on diagram) or *ACL* = 125 (in working or on diagram) *BCG* = 55 *GCD* = 125		2	M1
		Working not required, so correct answer scores full marks (unless from obvious incorrect working)	55		A1
	(ii)		one correct reason	1	B1 Dep on M1 in (b)(i) for a correct reason angles on a straight line add to 180 angles on a straight line add to 180 corresponding angles are equal allied angles opposite angles co-interior angles angles around a point angles around a point add to 360 (award mark for a correct reason so long as no more than one incorrect reason also given)
					Total 4 marks

Question	Working	Answer	Mark	Notes
9	48 ÷ 2 (= 24) or $\frac{3}{2} \times 48 (= 72)$		4	M1 Method to find the cost of 1 kg of carrots or 3 kg of carrots
	207 – 3 × "24" (= 135) or 207 – "72" (= 135) oe or "72" + 5*p* = 207			M1 dep on M1 Method to find the cost of the 5 kg of potatoes or a correct equation for potatoes (eg *p*)
	"135" ÷ 5			M1 dep on M2 Method to find the cost of 1 kg of potatoes
	Working not required, so correct answer scores full marks (unless from obvious incorrect working)	27		A1 cao If no method marks awarded SCB2 for an answer 31.8
				Total 4 marks

Question	Working	Answer	Mark	Notes
10 (a)			2	M1 60 + 17 (=77) or $(60 \pm n) \div 7$ where n is any number or $7 \times 11 - 17$
	Working not required, so correct answer scores full marks (unless from obvious incorrect working)	11		A1
(b)	[condone $y = \ldots\ldots$ or $x = \ldots\ldots$]	$\frac{x+7}{5}$	2	B2 oe eg $\frac{1}{5}(x + 7)$ or $0.2x + 1.4$ (B1 for $x + 7 \div 5$ with no arrows)
				Total 4 marks

Question		Working	Answer	Mark	Notes
11	(a)(i)		21.5 – 22.5	1	B1
	(ii)		31 - 32	1	B1
	(b)	eg $(31 \leq x \leq 32) \times 10$ **or** $(6 \leq y \leq 7) \times 50$ **or** $(12 \leq z \leq 13) \times 25$ **or** (answer to (a)(i)) $\times \frac{500}{35}$ oe		2	M1ft Students may use any valid method with examples shown on left – they may split the amount up into parts as well Readings from lines drawn on graphs may not be accurate but if no lines drawn then their value must be sensible.
		Working not required, so correct answer scores full marks (unless from obvious incorrect working)	300 - 325		A1 An answer in the range 300 – 325
					Total 4 marks

Question		Working	Answer	Mark	Notes
12	(a)		x^2+3x	1	B1
	(b)		$2(4p + 5)$	1	B1
	(c)	eg $y+f=eh$ or $\frac{y}{h}=\frac{eh}{h}-\frac{f}{h}$		2	M1 an equation that is one step from the answer
			$e=\frac{y+f}{h}$		A1 oe eg $e=\frac{y}{h}+\frac{f}{h}$ oe must see e = …. in working if not on answer line SCB1 for $\frac{y+f}{h}$ or $e=\frac{y-f}{h}$ or $e=y+f\div h$
	(d)		8, 9, 10	2	B2 (B1 for two correct values with none incorrect or three correct values and one incorrect value or two correct values and one incorrect value)
					Total 6 marks

Question	Working	Answer	Mark	Notes	
13	eg 0.1 × 150 (= 15)		4	M1	M2 for 0.9 × 150 (= 135)
	1800 + 360 (= 2160) oe eg 135*g* – 1800 = 360 or 150 – "15" (= 135)			M1 "15" must come from correct working	
	"2160" ÷ (150 – "15") or "2160" ÷ "135"			M1	
	Working not required, so correct answer scores full marks (unless from obvious incorrect working)	16		A1	
					Total 4 marks

Question	Working	Answer	Mark	Notes
14			2	M1 For 35.74 or 3.80788…. or for the correct answer but rounded or truncated to 3, 4 or 5 significant figures (9.38, 9.39, 9.385, 9.386, 9.3857, 9.3858)
	Working not required, so correct answer scores full marks (unless from obvious incorrect working)	9.38578(…)		A1 Minimum 9.38578
				Total 2 marks

Question	Working	Answer	Mark	Notes	
15	**SMALL** (£ per g) $\frac{1.80}{1.50}(=0.012)$ or (p per g) $\frac{180}{150}(=1.2)$ or (g per £) $\frac{150}{1.80}(=83.(3...))$ or (g per p) $\frac{1.50}{1.80}(=0.83..)$ **LARGE** (£ per g) $\frac{5}{400}(=0.0125)$ or (p per g) $\frac{500}{400}(=1.25)$ (g per £) $\frac{400}{5}(=80)$ or (g per p) $\frac{400}{500}(=0.8)$ **COMPARISON OF SAME AMOUNTS EXAMPLE** eg cost of 1200 g = $\frac{1200}{150}\times 1.80(=14.4)$ or cost of 1200 g = $\frac{1200}{400}\times 5(=15)$ oe		3	M1 A start to comparing costs by finding cost per gram for either size bag or for finding grams per pound (or pence) for either size bag or for finding the cost of a weight of fudge for either size bag.	M2 for a fully correct method to reach a conclusion eg $\frac{400}{150}\times 1.80(=4.8)$ or $\frac{150}{400}\times 5(=1.875)$ or $\frac{5}{1.80}\times 150\,(=416.66\ldots)$ or $\frac{1.80}{5}\times 400(=144)$ or 300 g = £3.60 100 g = £1.20 400 g = £4.80 etc
				M1 2 correct compatible calculations	
	Working required	Small		A1 Correct conclusion with correct values from correct working dep on M2	
					Total 3 marks

Question	Working	Answer	Mark	Notes
16	120 ÷ 20 (= 6) **or** 40 ÷ 20 (= 2) **or** 120 × 40 (= 4800) **or** $120\times40\times h=4800h$ **or** 20 × 20 (= 400) **or** 20 × 20 × 20 (= 8000)		4	M1 May be seen on diagram
	"8000" × 48 (= 384 000) **or** 48 ÷ ("2" × "6") (= 4 (number of layers)) **or** 6 × 2 (= 12 (on one layer)) **or** 4800 ÷ 400 (= 12 (on one layer))			M1
	(48 ÷ 12) × 20 oe eg 4 × 20 **or** 384 000 ÷ 4800 oe or showing a fully correct equation in *h* eg (120 × 40 × *h*) ÷ 8000 = 48 or 120 × 40 × *h* = 384 000			M1 or for 120 × 40 × 80 = 384 000 if the correct answer is not selected
	Working not required, so correct answer scores full marks (unless from obvious incorrect working)	80		A1
				Total 4 marks

Watch out for 80 coming from 120 – 40 or from another incorrect method

Question	Working	Answer	Mark	Notes
17 (a)		$25 < m \leq 30$	1	B1 Allow $25 < m < 30$ or 25 – 30 oe
(b)	$2.5 \times 8 + 7.5 \times 2 + 12.5 \times 6 + 17.5 \times 4 + 22.5 \times 12 + 27.5 \times 18$ (= 20 + 15 + 75 +70 + 270 + 495) [total using lower boundary = 820 (gains M1] [total using upper boundary = 1070 (gains M1)]		3	M2 For correct products using midpoints (allowing one error) with intention to add. (M1 for products using frequency and a consistent value within the range (allowing one error) with intention to add or correct products using midpoint without addition)
	Working not required, so correct answer scores full marks (unless from obvious incorrect working)	945		A1 An answer of 18.9 gains M2 only [mean from lower boundary = 16.4 (M1)] [mean from upper boundary = 21.4 (M1)]
				Total 4 marks

Question	Working	Answer	Mark	Notes
18	$10^2 - 8^2 (=36)$ or $8^2 + BC^2 = 10^2$ oe or $\cos BAC = \frac{8}{10}$ $(BAC = 36.869\ldots)$		4	M1
	$\sqrt{10^2 - 8^2}\,(=6)$ or tan"36.869…" × 8 (= 6) or sin"36.86…" × 10 (= 6)			M1 (beware that 14 – 8 = 6 has been seen and scores zero)
	$w = \sqrt{(5+"6")^2 + 14^2}$ $\left(=\sqrt{317}\right)$ or $EDC = \tan^{-1}\left(\frac{5+"6"}{14}\right)(=38.157)$ **and** $w = \frac{"11"}{\sin 38.157...}$ or $w = \frac{14}{\cos 38.157...}$ or $CED = \tan^{-1}\left(\frac{14}{"11"}\right)(=51.84...)$ **and** $w = \frac{11}{\cos 51.84...}$ or $w = \frac{14}{\sin 51.84...}$			M1ft Allow use of *their* value of *BC*
	Working not required, so correct answer scores full marks (unless from obvious incorrect working)	17.8		A1 awrt 17.8 if no other marks scored then SCB1 for 22.6(5…)
				Total 4 marks

WATCH OUT FOR $\sqrt{10^2 + 8^2}\,(=12.8...) + 5 = 17.8$ (which is the same as the answer….but a completely wrong method)

Question	Working	Answer	Mark	Notes
19 (a)	(4, 2), (4, 3), (5, 3), (5, 4), (6, 4), (6, 1), (5, 1), (5, 2)	Correct shape	2	B2 For the correct shape with all 8 points correct (B1 for the line $y = x$ drawn or a shape of the correct orientation and size anywhere on the grid)
(b)	Enlarged, enlarge etc	Enlargement	3	B1 With no mention of any other transformation or turn, move, flip, transform, up, right ….etc
	3 or ×3 or tripled or three or three times	(Scale factor) 3		B1 Allow ×3 or 3 times bigger or tripled (do not allow –3)
	No need for 'centre' Do not allow a column vector for coordinates.	(Centre) (7, 2)		B1 Just coordinates needed – allow without brackets
				Total 5 marks

Question	Working	Answer	Mark	Notes	
20 (a)	$2x + 5 = 6(2x - 5)$ or $2x + 5 = 12x - 30$ or $\frac{2}{6}x + \frac{5}{6} = 2x - 5$ oe (allow $0.33x + 0.83 = 2x - 5$)		3	M1	For multiplying both sides by 6 or separating values in fraction correctly in an equation. (decimals 2 dp or better)
	$2x - 12x = -30 - 5$ or $-10x = -35$ or $5 + 30 = 12x - 2x$ or $35 = 10x$ oe or $\frac{5}{6} + 5 = 2x - \frac{1}{3}x$ oe or $1\frac{2}{3}x = 5\frac{5}{6}$ oe			M1ft	For a method to collect the terms in x on one side and the number terms on the other side. ft from incorrect expansion dep on a number term and a term in x on both sides.
	Working required	3.5		A1	dep on M1 oe eg $\frac{7}{2}$ or $3\frac{1}{2}$
(b)		h^{12}	1	B1	Allow x^{12} or another letter to the power 12 but do not allow just 12
(c)	*Working not required, so correct answer scores full marks (unless from obvious incorrect working)*	$16g^{12}k^{20}$	2	B2	B1 for 2 terms correct in a product [must be 16 and not 2^4]
(d)	eg $\frac{y^n}{y^2} = y^{12}$ or $y^{-2} \times y^n = y^{12}$ or $y^5 \times y^{n-7} = y^{12}$ or $\frac{y^{5+n}}{y^7} = y^{12}$ $y^5 \times y^n = y^{19}$ or $y^{5+n-7} = y^{12}$ or $\frac{y^5}{y^{7-n}} = y^{12}$ or $y^{5+n} = y^{12+7}$ or $5 + n - 7 = 12$ oe		2	M1	for one correct application of an index rule (must be seen in powers of y) this could be after one initial mistake – working will need to be clearly seen **or** for a **correct** equation in n (no mistakes allowed)
	Working not required, so correct answer scores full marks (unless from obvious incorrect working)	14		A1	Allow y^{14}
					Total 8 marks

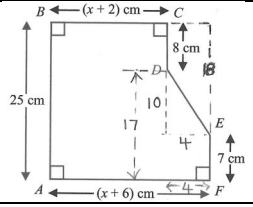
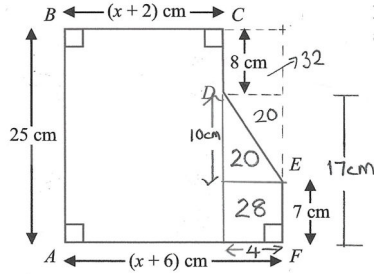
Question	Working	Answer	Mark	Notes
21	eg (one share of the ratio =)120 ÷ 2 (= 60) **or** $120\times\frac{3}{2}(=180)$ **or** 180 (g)[butter] **or** 180 : 120 **or** for writing the 3 parts of the ratio correctly eg 18 : 15 : 10 (or 18 : 15 and 15 : 10 or S : F = 18 : 10) oe eg 3.6 : 3 : 2		3	M1 For finding the value of one share or For a fully correct calculation for amount of butter or stating 180 (g) butter – may be shown in a ratio – does not need to be labelled if it is clear that the number or calculation refers to the amount of butter
	(3 × "60" ÷ 5) × 6 oe **or** $\frac{f}{"180"}=\frac{6}{5}$ **or** $\frac{18}{10}\times120$ oe eg $\frac{120}{10}\times18$ oe or $\frac{3.6}{2}\times120$ oe			M1 For a correct calculation to find the amount of flour Avril uses or a correct equation involving flour that if rearranged correctly would give the correct answer (award the M2 for 216 : 180 : 120 not labelled)
	Working not required, so correct answer scores full marks (unless from obvious incorrect working)	216		A1 or flour = 216 or eg s = 120, b = 180, f = 216 (but flour must be clearly labelled)
				Total 3 marks

Question	Working	Answer	Mark	Notes
22	eg $\frac{24}{7}$ **and** $\frac{8}{3}$		3	M1 for both mixed numbers expressed as improper fractions
	eg $\frac{24}{7}\times\frac{3}{8}$ **or** $\frac{72}{21}\div\frac{56}{21}$ **oe**			M1 (assumes previous M1) For inverting the 2nd fraction and showing intention to multiply or writing both fractions correctly over the same common denominator
	eg $\frac{24}{7}\times\frac{3}{8}=\frac{72}{56}=\frac{9}{7}=1\frac{2}{7}$ **or** $\frac{24}{7}\times\frac{3}{8}=\frac{72}{56}=1\frac{16}{56}=1\frac{2}{7}$ **or** $\frac{\cancel{24}^{3}}{7}\times\frac{3}{\cancel{8}^{1}}=\frac{9}{7}=1\frac{2}{7}$ **or** $\frac{24}{7}\div\frac{8}{3}=\frac{72}{21}\div\frac{56}{21}=\frac{72}{56}=\frac{9}{7}=1\frac{2}{7}$ **or** correct working to $\frac{9}{7}$ **and** writing $1\frac{2}{7}=\frac{9}{7}$ (possibly in first line of working)	Shown		A1 dep on M2 for conclusion to $1\frac{2}{7}$ from correct working – either sight of result of multiplication eg $\frac{72}{56}$ must be seen or correct cancelling to $\frac{9}{7}$ or complete method using division and common denominators Note: do not award the use of decimals any marks, but allow this as a check of work in fractions.
				Total 3 marks

Question	Working	Answer	Mark	Notes	
23	26 800 × 0.08 oe (= 2144) **or** 26 800 × 0.92 oe (= 24 656)		3	M1 for finding 8% or 92% of the value	OR M2 for 26 800 × $(1 – 0.08)^3$ or M2 for 26 800 × 0.92^4 or 19 199…
	0.92 × "24 656" (= 22 683.52) 0.92 × "22 683.52" or 0.08 × (26800 – 2144) = 1972.48 0.08 × (24656 – 1972.48) = 1814.6816 22683.52 – 1814.6816 (= 20868.8384)			M1 for completing method	(M1 for 26 800 × 0.92^2 or 22 683….)
	Working not required, so correct answer scores full marks (unless from obvious incorrect working)	20 869		A1 20 868 to 20 869 (inclusive) (SCB1 for 26 800 × 1.08^3 (= 33760….) or 26 800 × 0.08 × 3 (= 6432) or 26800 – 3 × 2144 (= 20368))	
					Total 3 marks

Question	Working	Answer	Mark	Notes	
24	8×6 (= 48) or 10×7 (= 70)		3	M1	M2 for a correct equation in k that if rearranged correctly should give the correct answer eg $\frac{48+2k}{10}=7$ or allow for $\frac{48+x}{10}=7$ or use of mean increased by 1 so 8 + 7 + 7 (= 22) oe
	"70" – "48"(= 22) oe eg $\frac{8\times6+22}{10}=7$ oe			M1	
	Working not required, so correct answer scores full marks (unless from obvious incorrect working)	11		A1	
					Total 3 marks

Question	Working	Answer	Mark	Notes
25		$y = 1.5x - 3$	2	B2 oe B1 for $y = 1.5x + c$ (where c can be zero) or $y = mx - 3$ (where m is any value but $m \neq 0$ or 1.5) or $1.5x - 3$ or Gradient = 1.5 oe eg $m = \frac{3}{2}$ or a clear calculation for gradient oe (must be labelled or the meaning shown by their diagram or working)
				Total 2 marks

Q	Working	An	Mark	Notes
26	 4 from F to left, vertically below D 17 from D vertically down to left of F 10 from D vertically to left of E 18 vertically up from E to right of C		5	B1 for a length of 4 (cm) or 17 (cm) or 25 – 7 – 8 (=10 (cm)) or 18 (cm) in the correct place on the diagram or calculated or used correctly in working.
	eg $25(x+2)(=25x+50)$ **or** $\frac{7+(25-8)}{2}\times((x+6)-(x+2))(=48)$ **or** $25(x+6)(=25x+150)$ **or** $\left(\frac{8+(25-7)}{2}\times 4\right)(=52)$ **or** $8(x+2)(=8x+16)$ **or** $\frac{(x+2)+(x+6)}{2}\times(25-8-7)(=10x+40)$ **or** $7(x+2)(=7x+14)$ **or** $10(x+2)(=10x+20)$ or $7(x+6)(=7x+42)$ **or** $(25-7)\times(x+2)(=18x+36)$ **or** $0.5(25-8-7)\times 4(=20)$			M2 for 2 correct expressions or values for the area of any 2 parts of the shape that do not overlap (unless subtracting) (need not be added or subtracted) (figures to be correct or come from correct working to award marks) **(M1 for one correct expression)** 
	eg $25x + 98 = 258$ or $25(x + 2) + 4 \times 7 + 0.5 \times 4 \times 10 = 258$ oe or $25(x + 6) = 258 + 20 + 32$ oe or eg $(258 – 98) \div 25$			M1 for an equation that is correct or from correct working. This need not have expanded terms and may not equal 258 if other work has been done. All parts for their method must be included with no overlaps OR a complete numerical method
	Working not required, so correct answer scores full marks (unless from obvious incorrect working)	6.4		A1 oe eg $^{160}/_{25}$
				Total 5 marks

Pearson Education Limited. Registered company number 872828
with its registered office at 80 Strand, London, WC2R 0RL, United Kingdom