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1MA1 Nov 2026 Paper 2 Best Guess Paper

Higher · Mark Scheme

————————————- Disclaimer ————————————-

This practice paper has been crafted through careful analysis of historical exam trends to identify topics highly likely to appear in the Pearson Edexcel 1MA1 Paper 2H. It is specifically designed as a targeted revision tool for students aiming to secure a Grade 5 on the Higher tier. The questions focus heavily on the critical Grade 4 and 5 crossover topics and accessible procedural skills needed to confidently reach that boundary.

While these topics are highly relevant for targeted revision, there is absolutely no guarantee they will appear on the real exam. Beware of social media claims promising perfect "predicted" papers—these are usually just sales tactics. The most effective preparation strategy remains a comprehensive revision of the entire mathematics specification.

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GCSE Mathematics 1MA1 · November 2026 · Target 4/5 · 22 questions · 80 marks

M: method mark · **A**: accuracy mark · **B**: independent mark.
Equivalent valid methods are accepted. Accuracy marks require the associated method, shown or implied. Partial credit is described in the guidance. This is an independent practice-paper scheme, not an official Pearson scheme.

Question 1 · 3 marks

Q / part	Working / method	Answer	Marks	Marking guidance
1(a)	Common difference = 4 4n – 1	**4n – 1**	**2**	**M1** — For 4n ± k, where k is an integer. **A1** — For 4n – 1 or equivalent.
1(b)	4n – 1 = 87 4n = 88, so n = 22	**87 is the 22nd term**	**1**	**B1** — For a valid demonstration: n = 22 is a positive integer, or a correct extension of the sequence to 87. An unsupported assertion is insufficient.

Question 2 · 3 marks

Q / part	Working / method	Answer	Marks	Marking guidance
2	∠PSR = 360° – (65° + 105° + 75°) = 115° ∠PST = 180° – 115° = 65° PT = PS, so ∠PTS = ∠PST.	**x = 65°**	**3**	**M1** — For 115°, using the sum of angles in a quadrilateral. **M1** — For 65° at S, using angles on a straight line. **A1** — For x = 65°, explaining that equal sides PT and PS give equal base angles at T and S.

Question 3 · 3 marks

Q / part	Working / method	Answer	Marks	Marking guidance
3(a)	3x – 5 > 10 3x > 15, so x > 5	**x > 5**	**2**	**M1** — For isolating 3x or dividing by 3. **A1** — For x > 5, correct answer only.
3(b)	Represent x > 5 on the number line.	**Open circle at 5; arrow right**	**1**	**B1** — For an open circle at 5 and a line/arrow pointing right.

Question 4 · 3 marks

Q / part	Working / method	Answer	Marks	Marking guidance
4	Midpoints: 2.5, 7.5, 12.5, 17.5, 22.5 Σfx = 15 + 105 + 225 + 140 + 90 = 575 575 ÷ 50 = 11.5	**11.5 kg**	**3**	**M1** — For finding the class midpoints. **M1** — For calculating Σfx = 575. **A1** — For 11.5, correct answer only.

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Question 5 · 2 marks

Q / part	Working / method	Answer	Marks	Marking guidance
5	5200×1.031^4 $= 5875.407655\ldots$	**£5875.41**	**2**	**M1** — For the correct multiplier 1.031 used to the power 4. **A1** — For £5875.41, rounded to 2 decimal places.

Question 6 · 6 marks

Q / part	Working / method	Answer	Marks	Marking guidance
6(a)	$(2p^3)^5 = 2^5p^{15}$	**$32p^{15}$**	**2**	**B2** — For $32p^{15}$. Award B1 for $32p^k$ or kp^{15}.
6(b)	$8p^2 - 6p - p^2 + 4p$	**$7p^2 - 2p$**	**2**	**M1** — For expanding to at least 3 correct terms with correct signs. **A1** — For $7p^2 - 2p$, correct answer only.
6(c)	$4c = t - d$	**$c = (t - d)/4$**	**2**	**M1** — For correctly isolating the 4c term. **A1** — For $c = (t - d)/4$ or equivalent.

Question 7 · 4 marks

Q / part	Working / method	Answer	Marks	Marking guidance
7	$5x - 1 = 3x + 5$ $2x = 6$, so $x = 3$ Height = 14 Area = 14×24	**336 cm^2**	**4**	**M1** — For equating opposite sides and isolating x. **M1** — For $x = 3$ and substitution to find the height (14). **M1** — For multiplying their height by 24. **A1** — For 336, correct answer only.

Question 8 · 4 marks

Q / part	Working / method	Answer	Marks	Marking guidance
8	$720 \div 12 = 60$ Tulips: 420; crocus: 180; daffodils: 120 $168 + 120 + 90 = 378$	**378 bulbs**	**4**	**M1** — For finding the value of one ratio share. **M1** — For finding the total number of at least one flower type. **M1** — For finding the yellow proportions and summing them. **A1** — For 378, correct answer only.

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Question 9 · 3 marks

Q / part	Working / method	Answer	Marks	Marking guidance
9	600 – 432 = 168 (168/600) × 100 = 28	**28%**	**3**	**M1** — For finding the absolute difference in sales. **M1** — For a complete method to calculate percentage decrease. **A1** — For 28, correct answer only.

Question 10 · 4 marks

Q / part	Working / method	Answer	Marks	Marking guidance
10(a)	90° anticlockwise about (0, 0): (x, y) → (–y, x)	**C has vertices (–1, 3), (–1, 5), (–2, 3)**	**2**	**B2** — For the correctly rotated triangle, labelled C. Award B1 for 2 correct image vertices.
10(b)	Centre (5, 1), scale factor 3: (x, y) → (5 + 3(x – 5), 1 + 3(y – 1))	**B has vertices (–1, 1), (–1, 4), (5, 1)**	**2**	**B2** — For the correctly enlarged triangle, labelled B. Award B1 for 2 correct image vertices.

Question 11 · 4 marks

Q / part	Working / method	Answer	Marks	Marking guidance
11	Shared side = $\sqrt{(15^2 – 9^2)} = 12$ $\sin 40° = 12/x$ $x = 12/\sin 40° = 18.6686…$	**18.7 cm**	**4**	**M1** — For applying Pythagoras to the top triangle. **A1** — For the shared side of length 12 cm. **M1** — For a correct trigonometric ratio using their shared side. **A1** — For a value which rounds to 18.7 cm.

Question 12 · 4 marks

Q / part	Working / method	Answer	Marks	Marking guidance
12(a)	Rain / no rain: 0.35 / 0.65 If rain: cancelled 0.8, not cancelled 0.2 If no rain: cancelled 0.1, not cancelled 0.9	**Correct probability tree**	**2**	**B2** — For all branch probabilities correct. Award B1 for 2 correct probabilities.
12(b)	(0.35 × 0.8) + (0.65 × 0.1) = 0.28 + 0.065	**0.345**	**2**	**M1** — For the complete method: calculating and adding the two cancellation pathways. **A1** — For 0.345, correct answer only.

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Question 13 · 5 marks

Q / part	Working / method	Answer	Marks	Marking guidance
13	Large semicircle: $(1/2)\pi \times 5^2$ Small semicircle: $(1/2)\pi \times 3^2$ Patio area = $12.5\pi - 4.5\pi = 8\pi$ Cost = $8\pi \times 24 \approx$ £603.19	**Yes: £603.19 is less than £1200**	**5**	**M1** — For finding the area of either semicircle. **M1** — For subtracting the semicircle areas. **A1** — For the correct patio area, 8π m^2 (approximately 25.13 m^2). **M1** — For multiplying their area by £24 per m^2. **A1** — For Yes with cost approximately £603.19 supporting the conclusion.

Question 14 · 4 marks

Q / part	Working / method	Answer	Marks	Marking guidance
14(a)	Scale factor = $18 \div 6 = 3$ $15 \div 3 = 5$	**DF = 5 cm**	**2**	**M1** — For finding the linear scale factor of 3. **A1** — For 5, correct answer only.
14(b)	$8 \times 3 = 24$	**BC = 24 cm**	**2**	**M1** — For multiplying the corresponding side by the scale factor. **A1** — For 24, correct answer only.

Question 15 · 3 marks

Q / part	Working / method	Answer	Marks	Marking guidance
15	$3y = 2x + 12$ $y = (2/3)x + 4$ Parallel gradient = 2/3 Intercept = 5	**$y = (2/3)x + 5$**	**3**	**M1** — For rearranging L_1 to find gradient 2/3. **M1** — For using the parallel gradient and given intercept. **A1** — For $y = (2/3)x + 5$ or equivalent.

Question 16 · 3 marks

Q / part	Working / method	Answer	Marks	Marking guidance
16	$a = 5$, $b = -6$, $c = -3$ $x = (6 \pm \sqrt{(36 + 60)})/10$ $x = 1.579795\ldots$ or $-0.379795\ldots$	**x = 1.58 or x = –0.380**	**3**	**M1** — For substituting $a = 5$, $b = -6$, $c = -3$ into the quadratic formula with correct signs. **M1** — For evaluating the discriminant (96) and obtaining at least one valid unrounded root. **A1** — For both roots, correctly rounded to 3 significant figures.

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Question 17 · 5 marks

Q / part	Working / method	Answer	Marks	Marking guidance
17(a)	$5^0 = 1$	**k = 0**	**1**	**B1** — For k = 0.
17(b)	$27/3^8 = 3^3/3^8 = 3^{-5}$	**m = –5**	**2**	**M1** — For writing 27 as 3 cubed and applying the quotient law. **A1** — For m = –5.
17(c)	$(7^{-4})^3 \times 7^5 = 7^{-12} \times 7^5 = 7^{-7}$	**p = –7**	**2**	**M1** — For multiplying the indices –4 × 3 and adding 5. **A1** — For p = –7.

Question 18 · 3 marks

Q / part	Working / method	Answer	Marks	Marking guidance
18	$V = (4/3)\pi \times 2.4^3 = 57.905835\ldots$ cm^3 Density = 385/V = 6.648725…	**6.65 g/cm^3**	**3**	**M1** — For using $V = (4/3)\pi r$ cubed with r = 2.4. **M1** — For dividing 385 by their sphere volume. **A1** — For 6.65, correctly rounded to 3 significant figures.

Question 19 · 2 marks

Q / part	Working / method	Answer	Marks	Marking guidance
19	Exclude the median (14). Lower half: 3, 5, 8, 10, 11 ⇒ $Q_1 = 8$ Upper half: 15, 18, 20, 21, 25 ⇒ $Q_3 = 20$ IQR = 20 – 8	**12 emails**	**2**	**B1** — For both quartiles Q1 = 8 and Q3 = 20. **B1** — For an interquartile range of 12.

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Question 20 · 4 marks

Q / part	Working / method	Answer	Marks	Marking guidance
20(a)	$y = (3x - 5)/2$ $2y + 5 = 3x$ $x = (2y + 5)/3$	**$f^{-1}(x) = (2x + 5)/3$**	**2**	**M1** — For rearranging to make the input the subject. **A1** — For f inverse(x) = (2x + 5)/3 or equivalent.
20(b)	$f(3) = (9 - 5)/2 = 2$ $g(2) = 2 \times 2^2 + 1 = 9$	**$gf(3) = 9$**	**2**	**M1** — For calculating f(3) = 2 and using it as the input to g. **A1** — For 9.

Question 21 · 4 marks

Q / part	Working / method	Answer	Marks	Marking guidance
21	Use relative densities 2, 4, 9, 7. Total area = $10 \times 2 + 20 \times 4 + 15 \times 9 + 15 \times 7 = 340$ Area from 25 to 50 = $5 \times 4 + 15 \times 9 + 5 \times 7 = 190$	**190/340 = 19/34 ≈ 0.559**	**4**	**M1** — For using bar areas (class width × density) as relative frequencies. **M1** — For the area between 25 and 50: 190 on this scale. **M1** — For dividing by the total area, 340 on this scale. **A1** — For 19/34 or equivalent. The unlabelled density axis permits any consistent proportional scale; never add bar heights alone.

Question 22 · 4 marks

Q / part	Working / method	Answer	Marks	Marking guidance
22	Area scale factor = $(80\pi)/(45\pi) = 16/9$ Linear scale factor = $\sqrt{(16/9)} = 4/3$ Volume scale factor = $(4/3)^3 = 64/27$ Volume B = $810 \times 64/27$	**1920 cm^3**	**4**	**M1** — For the linear scale factor 4/3 from the surface-area ratio. **M1** — For cubing the linear scale factor. **M1** — For multiplying 810 by the volume scale factor. **A1** — For 1920 cm cubed.