mygrade9
mathstutor.com
Boost Your Skills & Grades in Grade 9 Maths

1MA1 Nov 2026 Paper 2 Best Guess Paper

Higher · Target 9 · 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 9 on the Higher tier. The questions focus on challenging Higher tier topics, multi step methods and mathematical reasoning needed to support progress towards that target.

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.

The best way to prepare for the exams is to revise all topics. For fully worked solutions, video walkthroughs, and more free resources, visit www.mygrade9mathstutor.com.

If you find this paper help please support me, by buying me a coffee

Walkthrough playlist

The best way to work with this paper is work though it all, watch the Clip. If you get the question incorrect watch the clip again and then try the similar questions from the worksheets

Higher Target 9 Paper 2H · Mark Scheme

GCSE Mathematics 1MA1 · November 2026 · 20 questions · 80 marks

M: method mark · **A**: accuracy mark · **B**: independent mark.
Accept equivalent valid methods. Accuracy marks require the associated method, shown or implied. Follow-through credit requires a valid method. 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	Midpoints: 2.5, 7.5, 12.5, 17.5, 22.5. Σfm = 575; Σf = 50.	**11.5 kg**	**3**	**M1** — Use class midpoints. **M1** — Find the weighted total and divide by 50. **A1** — 11.5 kg.

Question 2 · 2 marks

Q / part	Working / method	Answer	Marks	Marking guidance
2	$5200 \times 1.031^4 = 5875.407655\ldots$	**$5875.41**	**2**	**M1** — Use four successive multiplications by 1.031. **A1** — Correct value to two decimal places.

Question 3 · 3 marks

Q / part	Working / method	Answer	Marks	Marking guidance
3	Original × 0.88 × 0.85 = 11220. 11220 ÷ 0.748 = 15000.	**£15000**	**3**	**M1** — Use the remaining-value multipliers. **M1** — Divide the final value by their product. **A1** — £15000.

Question 4 · 3 marks

Q / part	Working / method	Answer	Marks	Marking guidance
4	$V = (4/3)\pi \times 2.4^3 = 57.905835\ldots$ 385 ÷ V = 6.648725…	**6.65 g/cm^3**	**3**	**M1** — Sphere volume with radius 2.4. **M1** — Mass divided by unrounded volume. **A1** — Correct density to three significant figures.

Higher Target 9 Paper 2H · Mark Scheme

GCSE Mathematics 1MA1 · November 2026 · 20 questions · 80 marks

Question 5 · 4 marks

Q / part	Working / method	Answer	Marks	Marking guidance
5	Shared side = $\sqrt{(15^2 - 9^2)} = 12$. $x = 12/\sin 40°$.	**18.7 cm**	**4**	**M1** — Pythagoras in the upper triangle. **A1** — Shared side 12 cm. **M1** — Correct sine ratio in the lower triangle. **A1** — 18.7 cm to one decimal place.

Question 6 · 5 marks

Q / part	Working / method	Answer	Marks	Marking guidance
6	Area = $\frac{1}{2}\pi(5^2 - 3^2) = 8\pi$. Cost = $24 \times 8\pi$ = 603.185789…	**£603.19; yes, within £1200**	**5**	**M1** — Use radii 5 m and 3 m. **M1** — Subtract semicircle areas. **A1** — Area 8π m². **M1** — Multiply area by £24 per m². **A1** — Correct cost and justified yes.

Question 7 · 4 marks

Q / part	Working / method	Answer	Marks	Marking guidance
7	Relative bar areas: 20, 80, 135, 105. Total 340; selected area 20 + 135 + 35 = 190.	**19/34 ≈ 0.559**	**4**	**M1** — Use class width × relative density, not height alone. **A1** — Total area 340 in a consistent grid-unit scale. **M1** — Correct partial areas from 25 to 50. **A1** — 19/34 or equivalent.

Higher Target 9 Paper 2H · Mark Scheme

GCSE Mathematics 1MA1 · November 2026 · 20 questions · 80 marks

Question 8 · 3 marks

Q / part	Working / method	Answer	Marks	Marking guidance
8	First differences 5, 7, 9, 11; second difference 2. Subtract n^2: 1, 3, 5, 7, 9.	**$n^2 + 2n - 1$**	**3**	**M1** — Second differences or equivalent quadratic method. **M1** — Coefficient of n^2 is 1; determine the linear remainder. **A1** — Correct nth term.

Question 8 video solution

Higher Target 9 Paper 2H · Mark Scheme

GCSE Mathematics 1MA1 · November 2026 · 20 questions · 80 marks

Question 9 · 5 marks

Q / part	Working / method	Answer	Marks	Marking guidance
9(a)	Straight line through (–2,8), (0,4), (2,0), (3,–2).	**y = –2x + 4**	**3**	**B1** — Two correct points. **B1** — Correct straight line through plotted points. **B1** — Full specified range –2 to 3.
9(b)	Triangle with vertices (0,–1), (0,4), (2.5,–1). Boundaries included.	**Shade this triangle and label R**	**2**	**M1** — Correct sides of the three boundaries. **A1** — Correct complete triangular region labelled R.

Question 10 · 4 marks

Q / part	Working / method	Answer	Marks	Marking guidance
10(a)	$y = (3x – 5)/2 \rightarrow 2y + 5 = 3x$.	**$f^{-1}(x) = (2x + 5)/3$**	**2**	**M1** — Rearrange the function or equivalent inverse process. **A1** — Correct inverse.
10(b)	$f(3) = 2$; $g(2) = 2 \times 2^2 + 1$.	**9**	**2**	**M1** — Apply f first: f(3) = 2. **A1** — 9; do not reverse the composition.

Question 11 · 6 marks

Q / part	Working / method	Answer	Marks	Marking guidance
11(a)	Missing entries, from left to right.	**–1, 1, –0.4, 3**	**2**	**B1** — At least two of the four missing entries correct. **B1** — All four correct.
11(b)	Smooth cubic through the completed table points.	**Graph of $y = x^3 – 3x + 1$**	**2**	**M1** — Accurately plot table values. **A1** — Smooth curve with correct turning-point shape.
11(c)	Draw y = 2; read the three intersections.	**$x \approx –1.5, –0.3, 1.9$**	**2**	**M1** — Suitable straight line y = 2. **A1** — All three roots; accept consistent graphical readings within 0.1 of –1.532…, –0.347…, 1.879….

Higher Target 9 Paper 2H · Mark Scheme

GCSE Mathematics 1MA1 · November 2026 · 20 questions · 80 marks

Question 12 · 4 marks

Q / part	Working / method	Answer	Marks	Marking guidance
12	$s_U = 150.05$, $u_L = 11.95$, $t_L = 3.95$. $a_U = 2(150.05 - 11.95 \times 3.95)/3.95^2$.	**13.2 m/s² (3 s.f.)**	**4**	**M1** — Correct bounds for all three inputs. **M1** — Correct upper-bound substitution. **M1** — Evaluate 13.183464… using unrounded bounds. **A1** — 13.2, or an appropriately stated more precise upper-bound value.

Question 13 · 5 marks

Q / part	Working / method	Answer	Marks	Marking guidance
13(a)	$QR^2 = 18^2 + 24^2 - 2 \times 18 \times 24 \cos 52°$.	**19.2 cm**	**3**	**M1** — Correct cosine rule. **M1** — Evaluate and take the positive square root. **A1** — 19.2 cm to three significant figures.
13(b)	Area = ½ × 18 × 24 × sin 52° = 170.210322…	**170 cm² (3 s.f.)**	**2**	**M1** — Correct triangle-area formula. **A1** — 170 cm², or 1.70×10^2 cm².

Question 14 · 3 marks

Q / part	Working / method	Answer	Marks	Marking guidance
14	Width = 10 s. Distance ≈ 10[½(0 + 95) + 70 + 88].	**About 2055 m**	**3**	**M1** — Three strips of width 10. **M1** — Correct trapezium-rule expression with graph readings. **A1** — 2055 m; accept 2000–2150 m with reasonable consistent ordinates.

Question 14 video solution

Higher Target 9 Paper 2H · Mark Scheme

GCSE Mathematics 1MA1 · November 2026 · 20 questions · 80 marks

Question 15 · 3 marks

Q / part	Working / method	Answer	Marks	Marking guidance
15	$4050 = 5000k^2$. $k^2 = 0.81$; $k = \sqrt{0.81}$.	**$k = 0.9$**	**3**	**M1** — Use two annual multiplications. **M1** — Find $k^2 = 4050/5000$. **A1** — Positive multiplier 0.9.

Question 15 video solution

Higher Target 9 Paper 2H · Mark Scheme

GCSE Mathematics 1MA1 · November 2026 · 20 questions · 80 marks

Question 16 · 3 marks

Q / part	Working / method	Answer	Marks	Marking guidance
16	∠ADC = 72° (cyclic quadrilateral). ∠TDC = 108° (straight line). ∠ATC = 180° − 108° − 42°.	**30°**	**3**	**M1** — 72° with the cyclic-quadrilateral reason, or 108° using the exterior-angle theorem. **M1** — 108° at D with the straight-line reason, and use the triangle angle sum. **A1** — 30° with all necessary geometrical reasons stated.

Question 17 · 5 marks

Q / part	Working / method	Answer	Marks	Marking guidance
17	$m_{PR} = (k+2)/k$; $m_{QR} = (k+4)/(k-16)$. $(k+2)(k+4) = -k(k-16)$. $2k^2 - 10k + 8 = 0 \Rightarrow (k-1)(k-4) = 0$.	**k = 1 or 4**	**5**	**M1** — Form both gradients, or an equivalent valid Pythagoras method. **M1** — Use gradient product −1 and clear denominators. **A1** — Correct quadratic $2k^2 - 10k + 8 = 0$ or equivalent. **M1** — Solve the quadratic by a valid method. **A1** — Both k = 1 and k = 4.

Question 17 video solution

Question 18 · 5 marks

Q / part	Working / method	Answer	Marks	Marking guidance
18(a)	$[56 + (n-8)(n-9)]/[n(n-1)] = 7/15$. $15(n^2 - 17n + 128) = 7n(n-1)$.	**$n^2 - 31n + 240 = 0$**	**3**	**M1** — Correct probability of two red plus two blue. **M1** — Equate to 7/15 and clear denominators. **A1** — Correct expansion and simplification to the required equation.
18(b)	$(n-15)(n-16) = 0$. Both satisfy $n > 8$.	**n = 15 or n = 16**	**2**	**M1** — Correct factorisation or equivalent quadratic solution. **A1** — Both possible values; neither can be rejected.

Higher Target 9 Paper 2H · Mark Scheme

GCSE Mathematics 1MA1 · November 2026 · 20 questions · 80 marks

Question 19 · 4 marks

Q / part	Working / method	Answer	Marks	Marking guidance
19(a)	Smooth cosine curve through (0,1), (90,0), (180,–1), (270,0), (360,1).	**Correct cosine sketch**	**2**	**B1** — Recognisable smooth cosine curve with the correct orientation. **B1** — Correct zeros, minimum and endpoint heights.
19(b)	2 cos x° = 1 ⇒ cos x° = 0.5. Reference angle 60°; cosine is positive in quadrants I and IV.	**x = 60° or 300°**	**2**	**M1** — Find a valid solution or use cos x° = 0.5 correctly. **A1** — Both 60° and 300°, with no extra solutions.

Question 19 video solution

Question 20 · 6 marks

Q / part	Working / method	Answer	Marks	Marking guidance
20(a)	OP = 2a; OQ = 6a + ⅔(9b – 6a) = 2a + 6b. PQ = OQ – OP.	**PQ = 6b**	**2**	**M1** — Use both section ratios correctly. **A1** — Correct vector 6b.
20(b)	PQ = 6b = ⅔(9b) = ⅔OB.	**PQ parallel to OB; PQ:OB = 2:3**	**4**	**M1** — Compare PQ and OB as scalar multiples. **A1** — Correct multiplier 2/3. **B1** — Explain scalar multiples imply parallel directions. **B1** — Correct length ratio 2:3.