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1MA1 November 2026 · Paper 3H · Mark Scheme

——————————- Disclaimer ——————————-

This paper has been created based on topics from previous years and careful analysis of what topics are highly likely to appear in paper 3H. The paper should be excellent at helping students revise for exams. This paper is specifically targeted at students aiming for a Grade 5, so it intentionally avoids some of the grade 7 to 9 real exam paper. The topics from this paper may well appear in the real exams, however there is absolutely no guarantee of this. There are deliberately more questions at a higher grade than you would expect.
Despite what you might see on social media it is not possible to "predict" the paper perfectly. This is usually what people say when they are selling you something...

The best way to prepare for the exams is to revise all topics
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The Playlist for Solutions can be found

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 Paper 3H · Mark Scheme

GCSE Mathematics 1MA1 · November 2026 · Target 4/5 · 20 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	78 m = 7800 cm 7800 ÷ 200 = 39	**39 cm**	**3**	**M1** — Convert metres to centimetres. **M1** — Divide the actual length by 200. **A1** — Correct model length in centimetres.

Q1 clip

Practice worksheet

Question 2 · 3 marks

Q / part	Working / method	Answer	Marks	Marking guidance
2	(10 + q)/2 = 11, so q = 12 Mode = 19, so r = 19 19 – p = 16, so p = 3	**p = 3** **q = 12** **r = 19**	**3**	**B1** — For q = 12. **B1** — For r = 19. **B1** — For p = 3.

Q2 clip

Practice worksheet

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Question 3 · 2 marks

Q / part	Working / method	Answer	Marks	Marking guidance
3(a)	1.6 + 0.05	**1.65 m**	**1**	**B1** — Correct upper bound.
3(b)	1.6 – 0.05	**1.55 m**	**1**	**B1** — Correct lower bound.

Q3 clip

Practice worksheet

Question 4 · 5 marks

Q / part	Working / method	Answer	Marks	Marking guidance
4	600 × 1.15 = 690 euros 3 + 2 = 5 parts 690 × 2/5 = 276 euros 276 ÷ 1.18 = 233.898…	**£233.90**	**5**	**M1** — Convert £600 to €690. **M1** — Use saving fraction 2/(3+2) = 2/5. **M1** — Obtain savings of €276. **M1** — Divide savings by the new exchange rate 1.18. **A1** — Correct final amount to the nearest penny.

Q4 clip

Practice worksheet

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Question 5 · 7 marks

Q / part	Working / method	Answer	Marks	Marking guidance
5(a)	$x^2 + 7x - 4x - 28$	**$x^2 + 3x - 28$**	**2**	**M1** — Multiply out the two brackets. **A1** — Correct simplified quadratic.
5(b)	Highest common factor: $6cw^2$	**$6cw^2(3c^4 + 5w)$**	**2**	**M1** — Identify the highest common factor. **A1** — Correct fully factorised form.
5(c)	$7x - 2 = 4(3x + 1)$ $7x - 2 = 12x + 4$ $-5x = 6$	**$x = -1.2$**	**3**	**M1** — Multiply both sides by 4 and expand. **M1** — Collect variable and constant terms. **A1** — -1.2 or $-6/5$.

Q5(a) clip

Practice worksheet

Q5(b) clip

Practice worksheet

Q5(c) clip

Practice worksheet

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Question 6 · 2 marks

Q / part	Working / method	Answer	Marks	Marking guidance
6	075° + 180°	**255°**	**2**	**M1** — Reverse the direction by adding 180°. **A1** — Correct bearing.

Q6 clip

Practice worksheet

Question 7 · 3 marks

Q / part	Working / method	Answer	Marks	Marking guidance
7	$V = \pi r^2 h = \pi \times 4.5^2 \times 10$ $V = 636.172\ldots$	**636 cm³**	**3**	**M1** — Use the cylinder volume formula with correct values. **M1** — Correct numerical evaluation, before rounding. **A1** — 636 cm³ to 3 significant figures.

Q7 clip

Practice worksheet

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Question 8 · 3 marks

Q / part	Working / method	Answer	Marks	Marking guidance
8	135 km = 135000 m 1 h 30 min = 5400 s 135000 ÷ 5400	**25 m/s**	**3**	**M1** — Convert both distance and time into the required units. **M1** — Divide distance by time. **A1** — Correct speed.

Q8 clip

Practice worksheet

Question 9 · 4 marks

Q / part	Working / method	Answer	Marks	Marking guidance
9	54 ÷ 0.45 = 120 counters P(blue or yellow) = 0.4 120 × 0.4 = 48 48 × 3/8 = 18	**18 blue counters**	**4**	**M1** — Find the total of 120 counters. **M1** — Find remaining probability 0.4 or remaining count 48. **M1** — Use blue fraction 3/8 of the remaining counters. **A1** — 18 blue counters.

Q9 clip

Practice worksheet

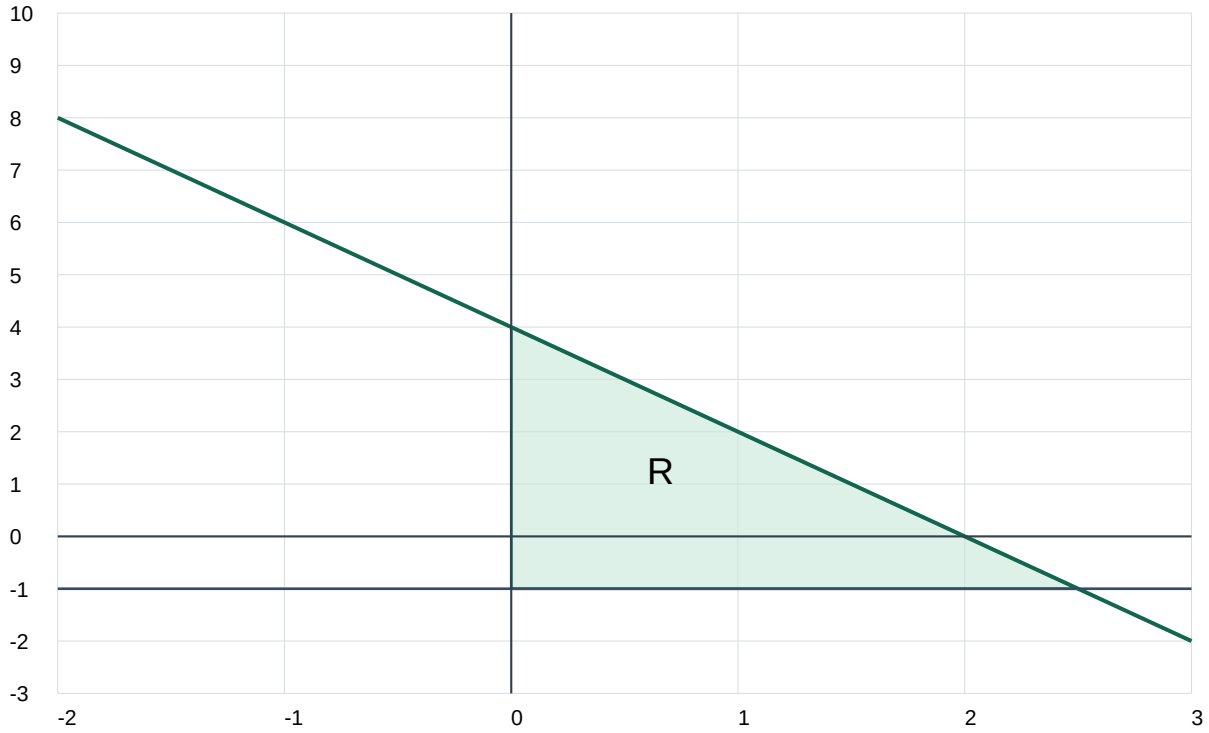
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Question 10 · 5 marks

Q / part	Working / method	Answer	Marks	Marking guidance
10(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.
10(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 · annotated graph



Solid boundaries included; shaded triangle is R.

Q10 clip

Practice worksheet

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Question 11 · 5 marks

Q / part	Working / method	Answer	Marks	Marking guidance
11(a)	$5^0 = 1$	**k = 0**	**1**	**B1** — For k = 0.
11(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.
11(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.

Q11 clip

Practice worksheet

Question 12 · 4 marks

Q / part	Working / method	Answer	Marks	Marking guidance
12	85000 × 0.88 × 0.85 = 63580 63580(1 + x/100) = 66759 66759 ÷ 63580 = 1.05	**x = 5**	**4**	**M1** — Apply both depreciation multipliers. **M1** — Set up the third-year percentage multiplier. **M1** — Find the third-year multiplier 1.05. **A1** — 5% increase.

Q12 clip

Practice worksheet

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Question 13 · 4 marks

Q / part	Working / method	Answer	Marks	Marking guidance
13	Interior angle = 180 – 360/11 = 147.2727…° BCDE is an isosceles trapezium. ∠DEB = (360 – 2 × 147.2727…)/2 = 32.7272…° ∠BEF = 147.2727… – 32.7272…	**114.5°**	**4**	**M1** — Find a regular polygon interior angle. **M1** — Use the equal base angles in isosceles trapezium BCDE. **M1** — Subtract angle DEB from the full interior angle at E. **A1** — 114.5° to one decimal place; accept another valid method.

Q13 clip

Practice worksheet

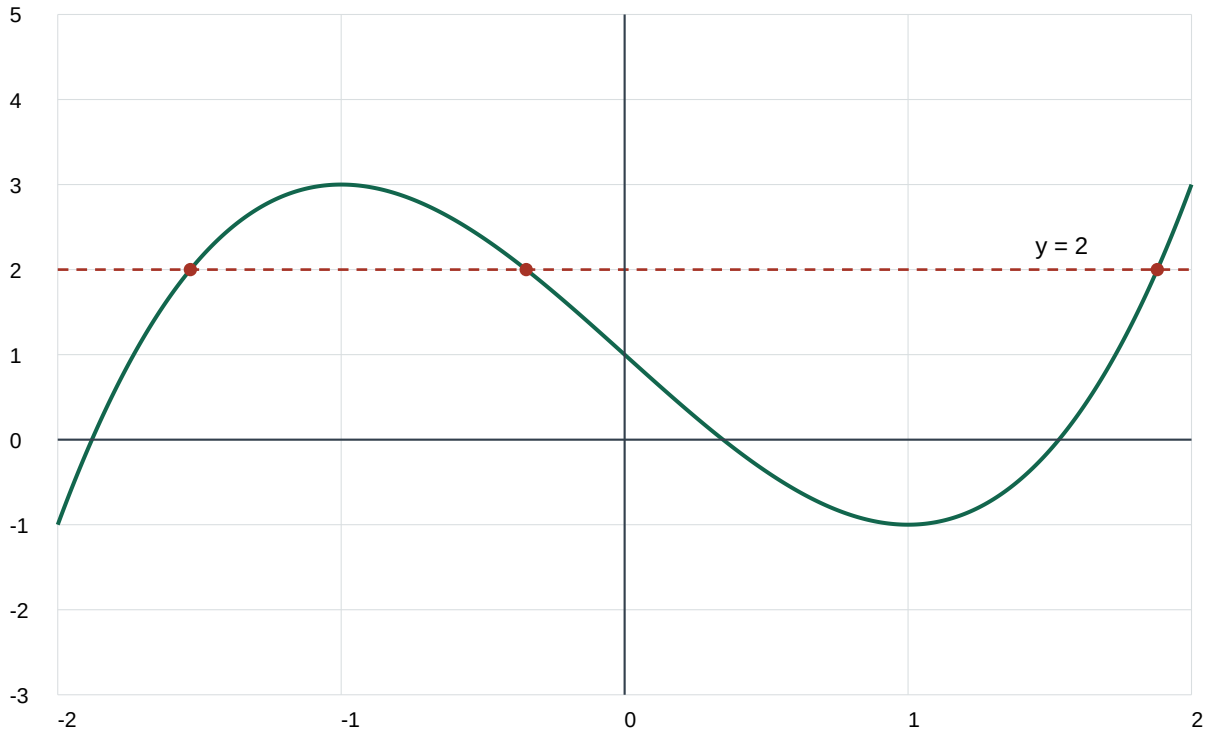
Question 14 · 6 marks

Q / part	Working / method	Answer	Marks	Marking guidance
14(a)	Missing entries, from left to right.	**–1, 1, 3**	**2**	**B1** — At least two of the three missing entries correct. **B1** — All three missing entries correct.
14(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.
14(c)	Draw y = 2; read the three intersections.	**$x \approx –1.5, –0.3, 1.9$**	**2**	**M1** — Suitable straight line y = 2. **A1** — A correctly read solution to 1 decimal place. Accept readings consistent with the drawn curve, within 0.1 of –1.532…, –0.347… or 1.879…. All three are shown for completeness.

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Question 14 · annotated graph



Intersections give x = -1.5, -0.3, 1.9 (1 decimal place).

Q14 clip

Practice worksheet

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.

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Q15 clip

Practice worksheet

Question 16 · 4 marks

Q / part	Working / method	Answer	Marks	Marking guidance
16	$y = 5t^2$; $t = 6/\sqrt{x}$. $y = 5 \times 36/x$.	**$y = 180/x$**	**4**	**M1** — Find constant 5 in $y = kt^2$. **M1** — Find constant 6 in $t = c/\sqrt{x}$. **M1** — Substitute $t^2 = 36/x$. **A1** — Correct simplest formula.

Q16 clip

Practice worksheet

Question 17 · 5 marks

Q / part	Working / method	Answer	Marks	Marking guidance
17(a)	HM = 5 cm $VM^2 = 15^2 + 5^2 = 250$	**VM = 15.8 cm**	**3**	**M1** — Find half the base side. **M1** — Use Pythagoras in triangle VHM. **A1** — 15.8 cm to 3 significant figures.
17(b)	$\tan\theta = VH/HM = 15/5 = 3$	**71.6°**	**2**	**M1** — Use the angle VMH between the face and base. **A1** — 71.6° to one decimal place.

Q17 clip

Practice worksheet

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Question 18 · 5 marks

Q / part	Working / method	Answer	Marks	Marking guidance
18(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.
18(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.

Q18(a) clip

Practice worksheet

Q18(b) clip

Practice worksheet

Question 19 · 4 marks

Q / part	Working / method	Answer	Marks	Marking guidance
19(a)	$2(x^2 - 6x) + 23$ $2[(x - 3)^2 - 9] + 23$	**$2(x - 3)^2 + 5$**	**3**	**M1** — Factor 2 from the quadratic and linear terms. **M1** — Complete the square correctly, accounting for the outer 2. **A1** — Correct completed-square form.
19(b)	Read the minimum from $2(x - 3)^2 + 5$.	**(3, 5)**	**1**	**B1** — Correct turning point.

Q19 clip

Practice worksheet

Higher Paper 3H · Mark Scheme

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Question 20 · 3 marks

Q / part	Working / method	Answer	Marks	Marking guidance
20	$4050 = 5000k^2$. $k^2 = 0.81$; $k = \sqrt{0.81}$.	**$k = 0.9$**	**3**	**M1** — Use two annual multiplications. **M1** — Find $k^2 = 4050/5000$. **A1** — Positive multiplier 0.9.

Q20 clip

Practice worksheet