Mark Scheme

GCSE Resit · Predicted Paper 1H · November 2026

Paper reference DNEP/AQA1HN26 · Total 80 marks

Answers and marking points written by DNEP Education, set out like the board mark schemes.

Question 1 · Number — 1 mark

0.012 B1

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Question 2 · Number — 2 marks

8:51 am

M1 LCM of 12 and 18 = 36, e.g. lists of multiples to 36, or $2^2 \times 3$ and 2×3^2 seen

A1 8:51 am (accept 08:51)

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Question 3 · Number — 2 marks

1 11/12

M1 45/12 − 22/12, or 2 + 9/12 − 10/12, or equivalent with a common denominator

A1 1 11/12

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Question 4 · Ratio & proportion — 3 marks

£60

M1 85% = 51, or 0.85 seen

M1 51 ÷ 85 (= 0.6) then × 100, or 51 ÷ 0.85

A1 60

(51 × 1.15 = 58.65 scores M0)

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Question 5 · Ratio & proportion — 3 marks

55

M1 14 : 4 : 3, or equivalent three-part ratio

M1 105 ÷ 21 (= 5), or cars 70 or motorbikes 15

A1 55

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Question 6 · Algebra — 3 marks

$x < 5$

M1 $5x + 2 > 3(2x - 1)$, or $5x + 2 > 6x - 3$

M1 collects terms correctly, e.g. $5 > x$ or $-x > -5$

A1 $x < 5$ (accept $5 > x$; $x = 5$ or $x > 5$ scores M1 M1 A0)

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Question 7 · Probability — 4 marks

(a) F only 26; F ∩ S 8; S only 17; outside 9

B2 all correct; B1 F ∩ S = 8, or two regions correct

(b) 43/60 B1ft (their 26 + 17)/60

(c) 8/25 B1ft (their 8)/25

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Question 8 · Geometry & measures — 3 marks

$280 + 49\pi$ m²
M1 $\pi \times 7^2$ (= 49π) for the two semicircles together, or $2 \times \frac{1}{2} \times \pi \times 7^2$
M1 20×14 (= 280)
A1 $280 + 49\pi$ (accept $49\pi + 280$ or $7(40 + 7\pi)$)
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Question 9 · Number — 2 marks

4×10^6
M1 $6 \div 1.5 = 4$, or 10^6 seen, or 4 000 000
A1 4×10^6
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Question 10 · Number — 4 marks

(a) $16x^{12}$ B1
(b) 8 B1
(c) 9/4 (accept 2¼ or 2.25)
M1 27/8 seen, or 2/3 or 4/9 seen (cube root or square of 8/27 correct)
A1 9/4
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Question 11 · Geometry & measures — 3 marks

Enlargement, scale factor −2, centre (0, 1)
B1 enlargement
B1 scale factor −2
B1 centre (0, 1)
(any second transformation named scores B0 B0 B0)
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Question 12 · Statistics — 5 marks

(a) 6, 20, 48, 70, 80 B1
(b) points plotted at upper class boundaries (10, 6), (20, 20), (30, 48), (40, 70), (50, 80), joined by a smooth curve or line segments
B2 all points correct and joined (ft their table); B1 at least 4 points correct, or all plotted at mid-points and joined
(c) answer in range 18 to 24 (straight-line reading 80 − 59 = 21)
M1 reads their graph at t = 35 (about 59) and subtracts from 80; A1ft their 80 − reading
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Question 13 · Probability — 4 marks

(a) first: red 5/8, blue 3/8; after red: red 4/7, blue 3/7; after blue: red 5/7, blue 2/7
B2 all correct; B1 first pair correct, or both second-pick pairs correct
(b) 26/56 = 13/28
M1 $5/8 \times 4/7 + 3/8 \times 2/7$ (ft their tree)
A1 13/28 (accept 26/56)
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Question 14 · Algebra **3 marks**

$x = 3$, $y = -1$
M1 equates coefficients of one variable, e.g. $12x + 9y = 27$ and $12x - 10y = 46$ (allow one error)
M1dep eliminates correctly, e.g. $19y = -19$
A1 $x = 3$ and $y = -1$
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Question 15 · Algebra **3 marks**

$2n^2 + n + 1$
M1 second difference 4, or $2n^2$ seen
M1 subtracts $2n^2$ to give 2, 3, 4, 5, 6 (or $n + 1$ seen)
A1 $2n^2 + n + 1$
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Question 16 · Ratio & proportion **3 marks**

(a) $y = 80/x^2$
M1 $y = k/x^2$, or $5 = k/4^2$
A1 $y = 80/x^2$
(b) 0.8 (accept 4/5) B1ft their $k \div 100$
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Question 17 · Number **2 marks**

M1 two correct recurring decimals that differ by a terminating decimal, e.g. $100x = 27.777\ldots$ and $10x = 2.777\ldots$
A1 $90x = 25$ and $x = 25/90 = 5/18$ (must see 25/90 or equivalent before 5/18)
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Question 18 · Geometry & measures **3 marks**

(a) $5\sqrt{3}$ cm
M1 $10 \times \sin 60$ or $10 \times \sqrt{3}/2$, or AB = 5 and $\sqrt{(10^2 - 5^2)} = \sqrt{75}$
A1 $5\sqrt{3}$ ($\sqrt{75}$ scores M1 A0)
(b) 150 B1
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Question 19 · Number **4 marks**

(a) $7\sqrt{3}$
M1 $5\sqrt{3}$ or $2\sqrt{3}$ seen
A1 $7\sqrt{3}$
(b) $6 + 2\sqrt{3}$
M1 multiplies numerator and denominator by $3 + \sqrt{3}$, giving denominator 6
A1 $6 + 2\sqrt{3}$ (accept $2(3 + \sqrt{3})$)
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Question 20 · Geometry & measures **4 marks**

128°
M1 angle OAB = 90 − 64 (= 26)
M1dep 180 − 2 × 26, or angle OBA = 26
A1 128
B1 both reasons: the tangent is perpendicular to the radius (angle OAT = 90°) AND triangle OAB is isosceles (OA = OB, so base angles are equal) / angles in a triangle add to 180°
(alternative: the alternate segment theorem gives angle ACB = 64 for C on the major arc, and the angle at the centre is twice the angle at the circumference)

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Question 21 · Algebra **3 marks**

$(x − 3)/(2x − 1)$
M1 $(x + 3)(x − 3)$
M1 $(2x − 1)(x + 3)$
A1 $(x − 3)/(2x − 1)$

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Question 22 · Algebra **3 marks**

(a) $(x − 3)^2 + 2$
M1 $(x − 3)^2$ seen, or $a = 3$
A1 $(x − 3)^2 + 2$
(b) $(x − 3)^2 \geq 0$, so $(x − 3)^2 + 2 \geq 2 > 0$ B1ft their $b > 0$

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Question 23 · Geometry & measures **3 marks**

640 cm³
M1 area scale factor 16/9 (or 9 : 16) and length scale factor 4/3 (or 3 : 4)
M1 volume scale factor 64/27, or 270 ÷ 27 × 64
A1 640

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Question 24 · Geometry & measures **3 marks**

M1 AB = 3b − 3a (or −3a + 3b)
M1 PQ = PA + AQ = a + (1/3)(3b − 3a), or OQ = 3a + (b − a) = 2a + b and OP = 2a
A1 PQ = b, with a conclusion: PQ is a multiple of OB (OB = 3PQ), so PQ is parallel to OB

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Question 25 · Algebra **4 marks**

$y = −¾x + 25/4$ (accept $y = −0.75x + 6.25$)
M1 gradient of OP = 4/3
M1 gradient of tangent = −3/4 (ft −1 ÷ their gradient)
M1 $y − 4 = −3/4(x − 3)$, or $4 = −3/4 × 3 + c$
A1 $y = −¾x + 25/4$

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Question 26 · Algebra **3 marks**

M1 two consecutive odd numbers in algebraic form, e.g. $2n + 1$ and $2n + 3$ (or $2n - 1$ and $2n + 1$)
M1 $(2n + 3)^2 - (2n + 1)^2 = 4n^2 + 12n + 9 - 4n^2 - 4n - 1$ (or difference of two squares: $(2)(4n + 4)$)
A1 $8n + 8 = 8(n + 1)$, with the statement that this is a multiple of 8