Mark Scheme

GCSE Resit · Predicted Paper 1H · November 2026

Paper reference DNEP/EDX1HN26 · Total 80 marks

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

Question 1 · Number — 3 marks

18.368

M1 a complete method, e.g. 287 × 64 by long multiplication or a grid with all partial products

A1 digits 18368 (ignore place value)

A1 18.368 (cao)

DNEP Education · in the style of Pearson Edexcel GCSE (9–1) Mathematics (1MA1) · Predicted Paper 1H

Question 2 · Number — 3 marks

630

M1 writes 90 or 126 as a product of prime factors ($90 = 2 \times 3^2 \times 5$, $126 = 2 \times 3^2 \times 7$), or lists at least 5 multiples of each

M1 both products correct, or a Venn diagram of prime factors, or $2 \times 3^2 \times 5 \times 7$

A1 630

DNEP Education · in the style of Pearson Edexcel GCSE (9–1) Mathematics (1MA1) · Predicted Paper 1H

Question 3 · Number — 3 marks

Shown

M1 converts both to improper fractions, 15/8 and 5/2

M1 inverts the divisor and multiplies, 15/8 × 2/5 (or uses a common denominator: 15/8 ÷ 20/8)

A1 30/40 = 3/4 with full working shown (or 15/20 = 3/4)

DNEP Education · in the style of Pearson Edexcel GCSE (9–1) Mathematics (1MA1) · Predicted Paper 1H

Question 4 · Ratio and proportion — 4 marks

80

P1 combines the ratios with a common tulip term, e.g. 20 : 15 : 24

P1 difference in parts for lilies and tulips, 24 − 15 = 9

P1 value of one part, 36 ÷ 9 = 4

A1 80

DNEP Education · in the style of Pearson Edexcel GCSE (9–1) Mathematics (1MA1) · Predicted Paper 1H

Question 5 · Geometry and measures — 4 marks

52°

M1 angle EFG = 64° (may be on the diagram)

M1 angle EGF = 64°, or 180 − 2 × 64

A1 52

C1 reasons linked to their method, e.g. alternate angles are equal; base angles of an isosceles triangle are equal; angles in a triangle add up to 180°

DNEP Education · in the style of Pearson Edexcel GCSE (9–1) Mathematics (1MA1) · Predicted Paper 1H

Question 6 · Ratio and proportion — 3 marks

£26 000

P1 recognises £27 040 is 104% (or uses the multiplier 1.04)

P1 27 040 ÷ 1.04, or 27 040 ÷ 104 (= 260) × 100

A1 26 000

DNEP Education · in the style of Pearson Edexcel GCSE (9–1) Mathematics (1MA1) · Predicted Paper 1H

Question 7 · Geometry and measures — 3 marks

14π cm²
M1 $\pi \times 6^2$ (= 36π)
M1 $140/360 \times \pi \times 6^2$, or $7/18 \times 36\pi$
A1 14π
DNEP Education · in the style of Pearson Edexcel GCSE (9–1) Mathematics (1MA1) · Predicted Paper 1H

Question 8 · Statistics — 5 marks

(a) B2 all 6 points plotted at (10, 4), (20, 16), (30, 40), (40, 62), (50, 74), (60, 80) ± ½ square and joined with a curve or line segments (accept a start at (0, 0))
B1 at least 4 points plotted correctly at the upper class boundaries
(b) B1 30 (accept 29 to 31, or ft their graph at a cumulative frequency of 40)
(c) C1 compares medians: Year 11 median (30) is higher than Year 10 median (25), so Year 11 students typically spent longer
C1 compares spread: Year 11 IQR (about 39 − 22 = 17; accept 15 to 20) is greater than Year 10 IQR (30 − 20 = 10), so Year 11 times are more varied (each comparison must be in context and use a correct statistic)
DNEP Education · in the style of Pearson Edexcel GCSE (9–1) Mathematics (1MA1) · Predicted Paper 1H

Question 9 · Number — 4 marks

(a) $27a^6b^3$ M1 two of 27, a^6, b^3 in a product; A1 $27a^6b^3$
(b) 1/16 M1 a correct first step, e.g. $\sqrt[3]{64} = 4$, or 64^(2/3) = 16, or 1/64^(2/3); A1 1/16 (accept 0.0625)
DNEP Education · in the style of Pearson Edexcel GCSE (9–1) Mathematics (1MA1) · Predicted Paper 1H

Question 10 · Algebra — 3 marks

$2x^3 + 3x^2 - 11x - 6$
M1 expands two of the brackets with at least 3 of 4 terms correct, e.g. $x^2 + x - 6$
M1 multiplies their 3-term quadratic by the third bracket, at least 4 of 6 terms correct (ft)
A1 $2x^3 + 3x^2 - 11x - 6$
DNEP Education · in the style of Pearson Edexcel GCSE (9–1) Mathematics (1MA1) · Predicted Paper 1H

Question 11 · Geometry and measures — 3 marks

160 cm³
P1 length scale factor from the areas, √(180/80) = 3/2 (or √(80/180) = 2/3)
P1 volume scale factor $(3/2)^3 = 27/8$ (or $(2/3)^3 = 8/27$)
A1 160
DNEP Education · in the style of Pearson Edexcel GCSE (9–1) Mathematics (1MA1) · Predicted Paper 1H

Question 12 · Number — 3 marks

Shown
M1 two recurring decimals that subtract to a terminating decimal, e.g. x = 0.2777…, 10x = 2.777…, 100x = 27.777…
M1 subtracts to get 90x = 25 (or 10x − x = 2.5, so 9x = 2.5)
A1 x = 25/90 = 5/18 shown with full working
DNEP Education · in the style of Pearson Edexcel GCSE (9–1) Mathematics (1MA1) · Predicted Paper 1H

Question 13 · Ratio and proportion — 3 marks

0.8
M1 $y = k/x^2$ (or $y \propto 1/x^2$)
M1 $k = 5 \times 4^2 = 80$
A1 0.8 (accept 4/5)

DNEP Education · in the style of Pearson Edexcel GCSE (9–1) Mathematics (1MA1) · Predicted Paper 1H

Question 14 · Algebra — 3 marks

$(x - 3)/(2x - 1)$
M1 numerator factorised, $(x + 3)(x - 3)$
M1 denominator factorised, $(2x - 1)(x + 3)$
A1 $(x - 3)/(2x - 1)$

DNEP Education · in the style of Pearson Edexcel GCSE (9–1) Mathematics (1MA1) · Predicted Paper 1H

Question 15 · Geometry and measures — 3 marks

$8\sqrt{2}$ cm
M1 AB/sin 45° = 8/sin 30° (correct use of the sine rule)
M1 substitutes sin 30° = 1/2 and sin 45° = $\sqrt{2}/2$ (or $1/\sqrt{2}$)
A1 $8\sqrt{2}$

DNEP Education · in the style of Pearson Edexcel GCSE (9–1) Mathematics (1MA1) · Predicted Paper 1H

Question 16 · Number — 5 marks

(a) $7\sqrt{3}$ M1 $\sqrt{75} = 5\sqrt{3}$ or $\sqrt{12} = 2\sqrt{3}$; A1 $7\sqrt{3}$
(b) M1 multiplies numerator and denominator by $3 + \sqrt{5}$
M1 numerator $9 + 3\sqrt{5} + 3\sqrt{5} + 5 = 14 + 6\sqrt{5}$ (at least 3 of 4 terms correct) and denominator $9 - 5 = 4$
A1 $(14 + 6\sqrt{5})/4 = (7 + 3\sqrt{5})/2$ shown

DNEP Education · in the style of Pearson Edexcel GCSE (9–1) Mathematics (1MA1) · Predicted Paper 1H

Question 17 · Geometry and measures — 4 marks

118°
M1 angle ABC = 124 ÷ 2 = 62°, or reflex angle AOC = 360 − 124 = 236°
M1 angle ADC = 180 − 62, or 236 ÷ 2
A1 118
C1 reasons, e.g. the angle at the centre is twice the angle at the circumference; opposite angles of a cyclic quadrilateral add up to 180° (or angles around a point add up to 360°)

DNEP Education · in the style of Pearson Edexcel GCSE (9–1) Mathematics (1MA1) · Predicted Paper 1H

Question 18 · Algebra — 3 marks

(a) $(x - 4)^2 + 5$ M1 $(x - 4)^2$ seen; A1 $(x - 4)^2 + 5$
(b) (4, 5) B1 (ft their (a))

DNEP Education · in the style of Pearson Edexcel GCSE (9–1) Mathematics (1MA1) · Predicted Paper 1H

Question 19 · Algebra — 5 marks

(a) $(x + 1)/3$ M1 $y = 3x - 1$ rearranged to $x = (y + 1)/3$, or a flow-diagram reversal; A1 $(x + 1)/3$
(b) $x = 1$ and $x = -1/3$
M1 $gf(x) = (3x - 1)^2 + 2$
M1 $(3x - 1)^2 = 4$, so $3x - 1 = \pm 2$ (or $9x^2 - 6x - 3 = 0 \rightarrow 3(3x + 1)(x - 1) = 0$)
A1 $x = 1$ and $x = -1/3$

DNEP Education · in the style of Pearson Edexcel GCSE (9–1) Mathematics (1MA1) · Predicted Paper 1H

Question 20 · Probability — 5 marks

(a) P1 $5/(n + 5) \times 4/(n + 4)$
P1 $20/((n + 5)(n + 4)) = 2/9$, so $(n + 5)(n + 4) = 90$
A1 $n^2 + 9n + 20 = 90$, so $n^2 + 9n - 70 = 0$ shown
(b) 5/9 P1 solves $(n + 14)(n - 5) = 0$ to get $n = 5$ and finds $5/10 \times 5/9$ (or $2 \times 25/90$, or $1 - 2/9 - 2/9$); A1 5/9 (accept 50/90)

DNEP Education · in the style of Pearson Edexcel GCSE (9–1) Mathematics (1MA1) · Predicted Paper 1H

Question 21 · Algebra — 4 marks

5 square units
M1 gradient of OP = 2/4 = 1/2
M1 gradient of tangent = −2 (negative reciprocal)
M1 equation of tangent $y - 2 = -2(x - 4)$, i.e. $y = -2x + 10$, and Q = (5, 0)
A1 $\frac{1}{2} \times 5 \times 2 = 5$

DNEP Education · in the style of Pearson Edexcel GCSE (9–1) Mathematics (1MA1) · Predicted Paper 1H

Question 22 · Geometry and measures — 4 marks

Proof
P1 AB = b − a, or $AN = \frac{1}{3}(b - a)$
P1 $MN = -\frac{1}{2}b + a + \frac{1}{3}(b - a) = \frac{2}{3}a - \frac{1}{6}b \left(= \frac{1}{6}(4a - b)\right)$
P1 $MX = -\frac{1}{2}b + 2a \left(= \frac{1}{2}(4a - b)\right)$
C1 MX = 3MN (or both multiples of 4a − b), so MN and MX are parallel and share the point M, hence M, N and X lie on a straight line

DNEP Education · in the style of Pearson Edexcel GCSE (9–1) Mathematics (1MA1) · Predicted Paper 1H