

National 5 Practice Paper H

Answers

Paper 1

1. $2\frac{5}{6}$

2. $6x^3 - x^2 + 13x - 10$

3. $m = (kL)^2$

4. a) $\underline{v} + 2\underline{u}$ (b) $\underline{v} - \underline{u}$

5. $\angle QRS = 34^\circ$

6. $\frac{3y}{y+3}$

7. 27

8. a) $x = 2$ (b) $y = 9$

9. $P(4, 5)$

10. $a = 5, b = 4$

11. Proof

12. $6\sqrt{2}$

13. $\frac{7m+3}{m(m+1)}$

14. Proof

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Paper 2

1. £684.70
2. a) Mean = 7 Standard Deviation = 3.96
b) Performance has improved as the median has increased, $27 > 7$
Performance is less varied since the Standard Deviation has fallen, $3.25 < 3.96$
3. $M(0, 1, 0)$ $N(4, 2, 2)$
4. $y = 3x - 1$
5. The staircase will NOT pass safety regulations since $0.88 < 0.9$
6. 5500cm^3
7. £860
8. 18.3m
9. 15m^2
10. 150.4cm^2
11. a) $f(270) = -3$ (b) $x = 11.5^\circ$ or 168.5°
12. Depth = 0.35
13. a) Proof (b) $x = 5$