Exponents: Notation, Squares, Cubes & Roots

MEMORANDUM

Name: ..... Class: .....

Date: .....

MARK ____ / 10

Answer all questions. Show all your working — marks are awarded for method as well as the final answer. **Teacher copy: accept any correct equivalent method.**

1 Write $7 \times 7 \times 7 \times 7$ in exponential form. **(1)**

> 7^4 ✓ (1)

2 Calculate 2^6. **(1)**

> $2 \times 2 \times 2 \times 2 \times 2 \times 2 = \mathbf{64}$ ✓ (1)

3 Calculate 10^3. **(1)**

> $10 \times 10 \times 10 = \mathbf{1\,000}$ ✓ (1)

4 Calculate $\sqrt{144}$. **(1)**

> **12** $(12 \times 12 = 144)$ ✓ (1)

5 Calculate $\sqrt[3]{125}$. **(1)**

> **5** $(5 \times 5 \times 5 = 125)$ ✓ (1)

6 Calculate $3^2 + 4^2$. **(2)**

> $9 + 16 = \mathbf{25}$ ✓✓ (2)

7 Write $3\,200\,000$ in scientific notation. **(2)**

> $\mathbf{3{,}2 \times 10^6}$ ✓✓ (2)

8 Write $5{,}4 \times 10^3$ as an ordinary number. **(1)**

> **5 400** ✓ (1)

TOTAL: 10 marks

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