MEMORANDUM

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

Date: .....

MARK ____ / 14

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 $(-5)^2$ **(1)**

$(-5)(-5) = \mathbf{25}$ (even power → positive) ✓ (1)

2 $(-2)^3$ **(1)**

$(-2)(-2)(-2) = \mathbf{-8}$ (odd power stays negative) ✓ (1)

3 -4^2 **(1)**

$-(4 \times 4) = \mathbf{-16}$ (no bracket, so only the 4 is squared) ✓ (1)

4 $(-4)^2$ **(1)**

$(-4)(-4) = \mathbf{16}$ ✓ (1)

5 $\sqrt{64}$ **(1)**

$\mathbf{8}$ ✓ (1)

6 $\sqrt[3]{-27}$ **(1)**

$\mathbf{-3}$, because $(-3)(-3)(-3) = -27$ ✓ (1)

7 $-10 + (-2) \times 5$ **(2)**

× first: $(-2) \times 5 = -10 \rightarrow -10 + (-10) = \mathbf{-20}$ ✓✓ (2)

8 $(-3)^2 - 4 \times (-2)$ **(2)**

$9 - (-8) = 9 + 8 = \mathbf{17}$ ✓✓ (2)

9 $(-20 + 8) \div (-3)$ **(2)**

Brackets: -12; then $(-12) \div (-3) = \mathbf{4}$ ✓✓ (2)

10 $\sqrt{36} + (-2)^3$ **(2)**

$6 + (-8) = \mathbf{-2}$ ✓✓ (2)

TOTAL: 14 marks

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