Mental Computation

Year 10A Mathematics   End Term 1

$$9^{\frac{3}{2}} = (\sqrt[2]{9})^3$$
$$= 3^3$$
$$= 27$$

Sample 1

Mental computation (End Term 1)
1   Spell Fractional Indices.
2   Simplify: $\sqrt{12}$
3   Simplify: $4^{\frac{3}{2}}$
4   What is the value of: $\text{Log}_{10}1000$
5   What is the formula for the volume of a cylinder?
6   Solve: $2x - 5 < 3$
7   Solve: $x + y = 7$, $xy = 10$
8    $^-2 - {}^-5$
9    $(x^{-3})^2$
10   Simplify: $\dfrac{x}{4} + \dfrac{2x}{4}$

Sample 2

Mental computation (End Term 1)
1   Spell Logarithms.
2   Simplify: $\sqrt{18}$
3   Simplify: $16^{\frac{3}{2}}$
4   What is the value of: $\text{Log}_2 8$
5   What is the formula for the volume of a pyramid?
6   Solve: $2x - 1 > 3$
7   Solve: $x + y = 7$, $xy = 12$
8    $^-2 - 3$
9    $x^{-2} \times x^2$
10   Simplify: $\dfrac{3x}{5} + \dfrac{x}{5}$

Sample 3

Mental computation (End Term 1)
1   Spell Surd.
2   Simplify: $\sqrt{27}$
3   Simplify: $8^{\frac{2}{3}}$
4   What is the value of: $\text{Log}_3 81$
5   What is the formula for the area of a circle?
6   Solve: $4x - 3 < 7$
7   Solve: $x + y = 11$, $xy = 30$
8    $^-8 - {}^-5$
9    $x^{-3} \div x^2$
10   Simplify: $\dfrac{2x}{6} + \dfrac{3x}{6}$