

King Fahd University of Petroleum and Minerals
Mathematical Sciences Department
Math 001
Quiz# 2
Term(031)

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Student's Name:.....

ID:SEC: ...

1) Simplify the expression $\left(\frac{-27}{8}\right)^{-\frac{2}{3}} \sqrt{\sqrt[3]{64}} + 3(-2)^0$

2) Simplify the expression $\sqrt[3]{54x^4y^7} + 5y\sqrt[3]{16x^4y^4}$ and combine like radicals

3) Rationalize the numerator of the expression $\frac{\sqrt{x-1}-\sqrt{x+1}}{\sqrt{x-1}+\sqrt{x+1}}$ if $x > 1$

4) Simplify $\left[\frac{(-2y)^0 y^{-2} (5y^2)^{-3}}{y^{-3} (5^{-1}y^5)^{-1}} \right]^{-1/4}$ if $y > 0$

5)

(a) Perform the product $(a^x - 2)^3 (a^x + 1)^2$

(b) Find the coefficient of a^{2x} in the above product.