

King Fahd University of Petroleum and Minerals
Per-Year Math Program
Math 001- Term 061
Recitation Hour (P2)

Question1

Simplify the expression $\left[\frac{-2^0(x^2y^{-1})^{-3}}{27^{-1}x^{-3}y^6} \right]^{-1/3}$, where x and y are nonzero real numbers.

Question2

Evaluate each expression

1. -2^{-3}
2. $\left(\frac{8}{27}\right)^{-2/3}$

Question3

Simplify $5x\sqrt[3]{54x^4} - 3\sqrt[3]{16x^7}$. Write the answer in the simplest form.

Question4

Simplify each expression by rationalizing the denominator. Write the result in the simplest form.

1. $\frac{\sqrt{6} - \sqrt{2}}{\sqrt{8} + \sqrt{10}}$
2. $\frac{1}{\sqrt[5]{4x^3}}$

Question5

Write the number $\frac{(4.0 \times 10^{-9})(8.4 \times 10^5)}{(3.0 \times 10^{-6})(1.4 \times 10^{12})}$ in scientific notation.