

King Fahd University of Petroleum and Minerals
Faculty of Science – Per-Year Math Program
Math 001 - Term 032
Recitation hour (P3 & P4)

Question1:

Simplify the expression $\left[\frac{(-2)^0(x^3y^{-1})^{-2}}{(8)^{-1}x^{-3}y^5} \right]^{-1/3}$, where x and y are nonzero real numbers.

Question2:

Evaluate each expression

1. -3^{-2}
2. $\left(-\frac{8}{27}\right)^{2/3}$
3. $\sqrt[3]{0.027}$

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. $\frac{\sqrt{6}}{\sqrt{3}-\sqrt{2}}$
2. $\frac{2}{\sqrt[3]{4x}}$

Question4:

Given the polynomial $(3x - 2)^3 + (6x - 1)^2$

a. Write this polynomial in the standard form .

b. Complete the following table:

The leading coefficient is	The constant term is	The coefficient of is x^2

Question5

TRUE or FALSE

1. If x is any real number, then $\sqrt[3]{-x^3} = -x$.
2. If x and y is any real number, then $\sqrt[3]{xy} \sqrt[5]{xy^2} = \sqrt[8]{x^2y^3}$.
3. $x + \sqrt{x}$ is a polynomial.
4. $xy^2 - \frac{1}{2}(xy)^3 + x^2y^3 + 3$ is a polynomial of degree 5.
5. The scientific notation of the number 0.000030052 is 3.0025×10^5