

Math 70 Quiz #10 Solutions

1. (a) $9.4 \times 10^{-4} = 0.00094$ (Move the decimal 4 digits to the left.)

(b) $7 \times 10^5 = 700,000$ (Move the decimal 5 digits to the right.)

2. (a) $83,900,000 = 8.39 \times 10^7$

(b) $0.00005124 = 5.124 \times 10^{-5}$

3. The term $2x^3y$ has degree 4. (The power of x is 3 and the power of y is 1. The degree of the term is the sum of the two powers.)

The term $6x^3y^3$ has degree 6. (The power of x is 3 and the power of y is 3. The degree of the term is the sum of the two powers.)

The degree of the polynomial is 6 since that is the highest degree of the terms.

This polynomial is a binomial since it has two terms.

4. (a) $(4x^2 - x - 2) + (2x^2 + 5x - 6) = 6x^2 + 4x - 8$

(b) $(\frac{1}{2}x^3 + x) + (\frac{2}{3}x^3 - x) = \frac{7}{6}x^3$ since $\frac{1}{2} + \frac{2}{3} = \frac{3}{6} + \frac{4}{6} = \frac{7}{6}$ and $x + (-x) = 0$

(c) $(3xy - 7x + 2y) - (xy - 5x - y) = (3xy - 7x + 2y) + (-xy + 5x + y)$
 $= 2xy - 2x + 3y$