

Pre-Algebra & Algebra Review Questions

Evaluate and simplify as much as possible.

1. Integers: *Adding/Subtracting*

a. $-3 + -9 =$

b. $-7 + 3 =$

c. $45 - (-3) =$

Integers: *Multiplying/Dividing*

d. $-13 * -2 =$

e. $-36 \div 6 =$

2. Fractions

a. $\frac{1}{2} \times \frac{3}{2} =$

b. $\frac{6}{4} \div \frac{1}{5} =$

3. Order of Operations (PEMDAS)

a. $6 - (4 - 2) + 9 \div (-1 + 4)^2 =$

4. Adding/Subtracting Polynomials (like terms)

a. $x^2 - 3x + 7 - 9x - 12x^2 =$

5. Distribution

a. $2\left(8 - \frac{3}{x+2}\right) =$

b. $7x(x+2) =$

6. FOIL

a. $(x-9)(x-3) =$

b. $(x + 8)(x - 4) =$

7. Factoring (*Factor the following*)

a. $x^2 + 4x + 3 =$

b. $x^2 - 12x - 13 =$

c. $x^2 - 1 =$

e. $3x^3 - 12x^2 - 9 =$

8. Solving

a. $\frac{x}{3} + 7 = -1$

b. $x^2 = 4$

c. $\sqrt{x} = 9$

9. Exponents

a. $x^{1/2} * x^{3/2} =$

b. $(x^{1/3})^{5/2} =$