

## Math 1050 Elementary Algebra

### Catalog Description:

This is an introductory course in elementary algebra that introduces the real number system; equations; inequalities; graphs of linear equations and inequalities in two variables; systems of linear equations and inequalities; exponents and polynomials; and factoring.

### SLO:

Course #1 - Solve a system of two linear equations and interpret the solution graphically and algebraically.  
Course #2 - Perform algebraic operations on polynomials: add, subtract, multiply, and divide by a monomial.

### Sample Problems:

**Multiply or divide and write answer in lowest terms.**

1.  $\frac{5}{12} \cdot \frac{3}{10}$

2.  $\frac{5}{4} \div \frac{3}{8}$

**Add or subtract and write answer in lowest terms.**

3.  $\frac{4}{15} + \frac{1}{5}$

4.  $\frac{7}{12} - \frac{1}{9}$

**Simplify by using the order of operations.**

5.  $-3 + (-2 + -9) + 2(2 - 5)$

6.  $\frac{9^2 - 4^2}{3 + -8}$

**Simplify by collecting like terms.**

7.  $-7q - 5 + 13q + 21$

**Solve the equation.**

8.  $-x+28-6x=5x-12-2x$

9.  $9.1m-5.2=3.1m+13.4$

**Solve each proportion.**

10.  $\frac{x}{12} = \frac{45}{60}$

11.  $\frac{x}{7.5} = \frac{5.7}{4.5}$

**Solve each percent problem.**

12. What percent of \$540 is \$189?

13. 40% of what amount is \$256?

**Perform the indicated operations.**

14.  $(5k^2 - 3k + 7) + (-8k^2 + 2k - 6)$

15.  $(8x^3 - 5x^2 + 9) - (8x^3 + 3x^2 - 10)$

**Answers**

1.  $\frac{1}{8}$

2.  $\frac{10}{3}$

3.  $\frac{7}{15}$

4.  $\frac{17}{36}$

5. -20

6. -13

7.  $6q + 16$

8.  $x = 4$

9.  $m = 3.1$

10.  $x = 9$

11.  $x = 9.5$

12.  $x = 35\%$

13.  $x = \$640$

14.  $-3k^2 - k + 1$

15.  $-8x^2 + 19$