

Algebra 2
Homework: Solving a System of EQs in 3 variables
Using Substitution

Name: _____
Date: _____

The first two problems are new material. The last two problems are review. Work all problems so you remember how to do everything we have learned.

1. Solve the system of equations in 3 variables by substitution.

$$2x - 2y + z = 3$$

$$5y - z = -31$$

$$x + 3y + 2z = -21$$

2. Solve the system of equations in 3 variables by substitution.

$$2x + y + z = 12$$

$$5x + 5y + 5z = 20$$

$$x - 4y + z = 21$$

3. Use a calculator to answer the following question(s).

A ball is thrown upward from a height of 15ft with an initial upward velocity of 5 ft/second. Use the formula $h(t) = -16t^2 + vt + s$ to find how long it will take for the ball to hit the ground.

4. Solve the system of equations by graphing and find the point of intersection. Write your answer as an ordered pair, (x, y) .

$$2x - 3y = 3$$

$$x + 2y = 5$$

