

Submit your written solutions by end of Thursday on Blackboard (look for the “Quiz #2” Assignment). Please **scan your written answers to a single pdf file**.
If you have access to a printer, print out this pdf and write your solutions in the spaces provided. Otherwise, write your answers on blank pieces of paper.
You must show all your work for full credit!

Solve the following system of 3 linear equations in 3 variables:

$$-2x + 5y + z = 8 \quad (1)$$

$$x - 2y - 3z = -13 \quad (2)$$

$$x + 3y - z = 5 \quad (3)$$

1. Choose a pair of equations, and eliminate one of the variables by using the addition method.

(Hint: You can eliminate z by adding equations (1) and (3)!)

2. Choose a *different* pair of equations, and eliminate the *same* variable:

3. Solve the resulting system of 2 equations in 2 variables:

4. Plug the values of the 2 variables you solved for above into any of the 3 original equations, and solve for the 3rd variable:

5. Check the solution by substituting your values for (x, y, z) into each of the original equations: