$$y=-4x+8$$

$$3x-2y=12$$

A student solved this following system of equations as follows…find the error and then find the correct solution.

$$3x-2\left(-4x+8\right)=12$$

$$3x+8x+16=12$$

$$11x+16=12$$

$$11x=-4$$

$$x=\frac{-4}{11}$$

Solve by elimination: Find the error and fix.

$$2x+5y=-22$$

$$10x+3y=22$$

$$-5\left(2x+5y\right)=-22$$

$$10x+3y=22$$

$$-10x-25y=-22$$

$$-22y=0$$

$$y=0$$

$$2x+5\left(0\right)=-22$$

$$2x=-22$$

$$x=-11$$

Suppose Jeff was checking a solution to a system of equations. Jeff got two different answers from each equation. What is wrong with this? Please explain.

A farmer grows only pumpkins and corn on her 420 acre farm. This year she wants to plant 250 more acres of corn than pumpkins. How many acres of each crop does the farmer need to plant. Use two different methods to solve this problem.

Jim and Toni are on opposing teams in a soccer match. They are running after the same ball. Jim’s path is the line y = 3x. Toni’s path is y = -2x + 100. When solving for where the ball is you get x = 20 and your friend gets x =x60. Who is correct?

The bill for a lunch of three hamburgers and two drinks is $9.67. The bill for a lunch of four hamburgers and three drinks is $13.21. What is the total cost of one hamburger and one drink?

* To solve this problem, Jill multiplied the first equation by four and the second equation by three. Her friend Katie didn’t agree with her solution. What mistake of Jill’s did Katie catch? Write an explanation that Kate gave to Jill to correctly solve this system.