

W-A2 Algebra 2 Week 20 2/15

$$\textcircled{1} \quad x + 4y - 5z = 13$$

$$\textcircled{2} \quad -4x + 2y + 2z = -16$$

$$\textcircled{3} \quad 3x \boxed{-y} - 4z = 21$$

$$\textcircled{2} \quad -4x + 2y + 2z = -16$$

$$\textcircled{3} \quad 2(3x - y - 4z = 21)$$

$$\textcircled{1} \quad x + 4y - 5z = 13$$

$$\textcircled{3} \quad 4(3x - y - 4z = 21)$$

$$x + 4y - 5z = 13$$

$$+ 12x - \cancel{4y} - 16z = 84$$

$$\textcircled{4} \quad 13x - 21z = 97$$

21, $\boxed{42}$, 63, 84, 105, ...

6, 12, 18, 24, 30, 36, $\boxed{42}$

$$-4x + \cancel{2y} + 2z = -16$$

$$+ 6x - \cancel{2y} - 8z = 42$$

$$\textcircled{5} \quad 2x - 6z = 26$$

$$\textcircled{4} \quad 2(13x - 21z = 97)$$

$$\textcircled{5} \quad -1(2x - 6z = 26)$$

$$26x - 42z = 194$$

$$+ -14x + 42z = -182$$

$$\textcircled{5} \quad 2x - 6z = 26$$

$$2(1) - 6z = 26$$

$$2 - 6z = 26$$

$$-2 \qquad \qquad -2$$

$$-6z = 24$$

$$\frac{-6}{-6} \qquad \frac{-6}{-6}$$

$$1 z = 4$$

$$(1, -2, -4)$$

$$\frac{12x}{12} = \frac{12}{12}$$

$$\boxed{x = 1}$$

$$3x - y - 4z = 21$$

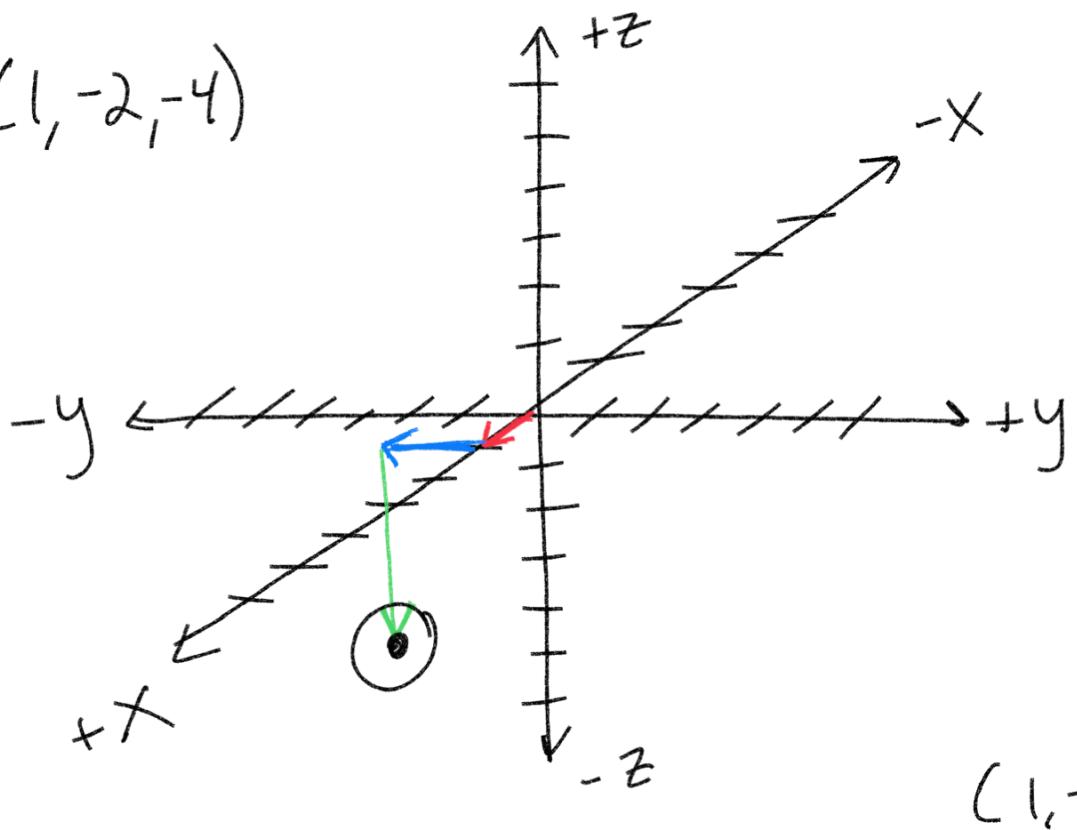
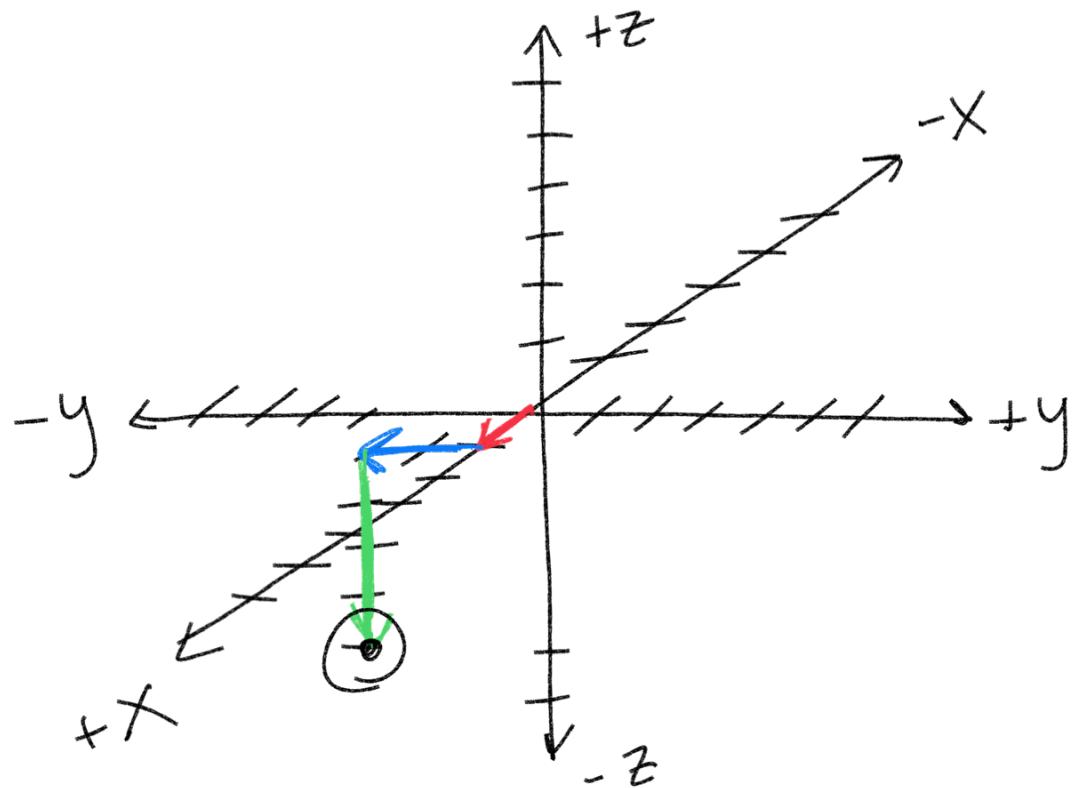
$$3(1) - y - 4(-4) = 21$$

$$3 - y + 16 = 21$$

$$-y + 19 = 21$$

$$\frac{-y = 2}{-1 = -1}$$

$$\boxed{y = 2}$$

$(1, -2, -4)$  $(1, -2, -4)$ 

$$\textcircled{1} \quad 3x + 5y + 5z = -20$$

$$\textcircled{2} \quad -4x + y + 2z = -30$$

$$\textcircled{3} \quad x - 4y + 4z = 9$$

$$\textcircled{2} \quad -4x + y + 2z = -30$$

$$\textcircled{3} \quad 4(x - 4y + 4z = 9)$$

$$-4x + y + 2z = -30$$

$$+ 4x - 16y + 16z = 36$$

$$\underline{-15y + 18z = \frac{6}{3}}$$

$$\textcircled{5} \quad -5y + 6z = 2$$

$$-5y + 6z = 2$$

$$-5(-4) + 6z = 2$$

$$\begin{array}{r} 20 + 6z = 2 \\ -20 \end{array}$$

$$\begin{array}{r} 6z = -18 \\ \hline 6 \\ \boxed{z = -3} \end{array}$$

$$\boxed{(5, -4, -3)}$$

$$\textcircled{1} \quad 3x + 5y + 5z = -20$$

$$\textcircled{3} \quad -3(x - 4y + 4z = 9)$$

$$\cancel{3x} + 5y + 5z = -20$$

$$+ \cancel{-3x} + 12y - 12z = -27$$

$$\textcircled{4} \quad 17y - 12z = -47$$

$$6(17y - 12z = -47)$$

$$7(-5y + 6z = 2)$$

$$\begin{array}{r} 102y - 42z = -282 \\ -35y + 42z = 14 \\ \hline \end{array}$$

$$\frac{67y}{67} = \frac{-268}{67}$$

$$\boxed{y = -4}$$

$$x - 4y + 4z = 9$$

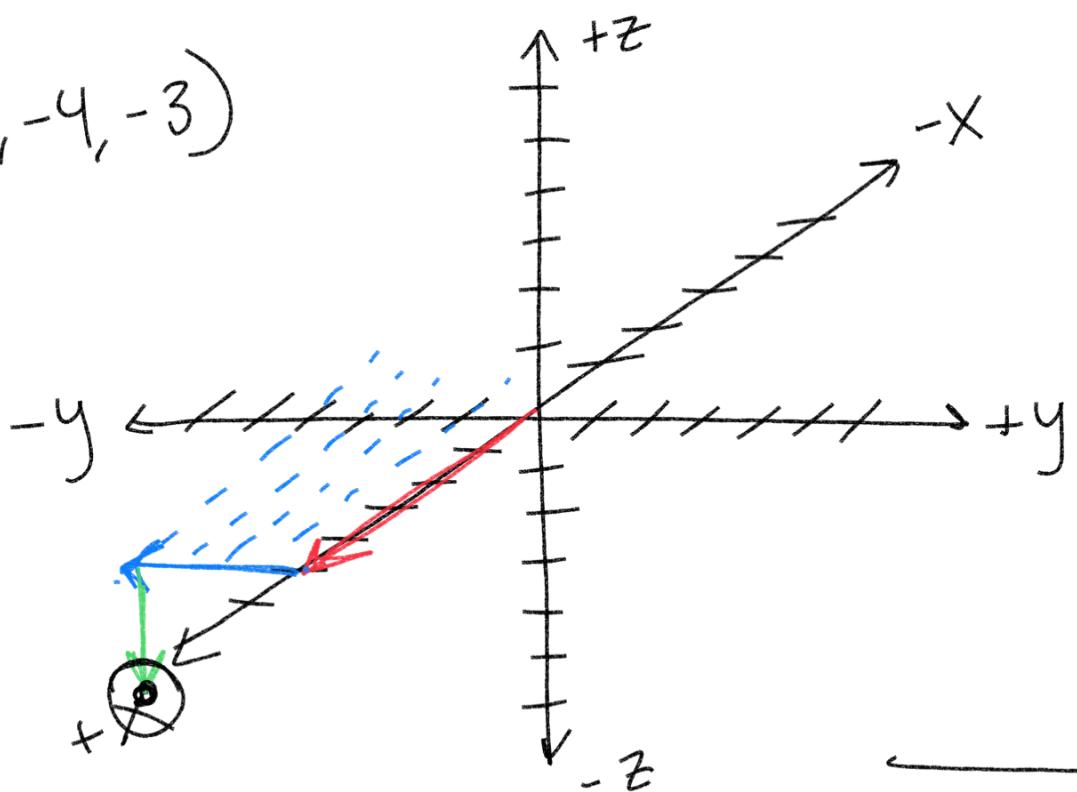
$$x - 4(-4) + 4(-3) = 9$$

$$x + 16 - 12 = 9$$

$$\begin{array}{r} x + 4 = 9 \\ -4 \end{array}$$

$$\boxed{x = 5}$$

$(5, -4, -3)$



$$4x - 2y + z = 17$$

$$2x + 3y - 4z = -12$$

$$6x + y + 2z = 10$$

$\boxed{(2, -4, 1)}$