

$$\begin{aligned} \textcircled{X} + 4y - 5z &= 13 \\ -4x + 2y + 2z &= -16 \\ 3x - \textcircled{y} - 4z &= 21 \end{aligned}$$

$$\begin{aligned} 4(x + 4y - 5z) &= 4(13) \\ -4x + 2y + 2z &= -16 \end{aligned}$$

$$\begin{aligned} -3(x + 4y - 5z) &= -3(13) \\ 3x - y - 4z &= 21 \end{aligned}$$

$$\begin{aligned} -3x - 12y + 15z &= -39 \\ + 3x - y - 4z &= 21 \\ \hline -13y + 11z &= -18 \end{aligned}$$

$$\begin{aligned} 4x + 16y - 20z &= 52 \\ + -4x + 2y + 2z &= -16 \\ \hline 18y - 18z &= 36 \\ \frac{18y}{18} - \frac{18z}{18} &= \frac{36}{18} \end{aligned}$$

$$\sum_{\Sigma} y - z = 2$$

$$y - (-4) = 2$$

$$\begin{array}{r} y + 4 = 2 \\ -4 \quad -4 \end{array}$$

$$\boxed{y = -2}$$

$$\begin{aligned} X + 4y - 5z &= 13 \\ X + 4(-2) - 5(-4) &= 13 \\ X - 8 + 20 &= 13 \end{aligned}$$

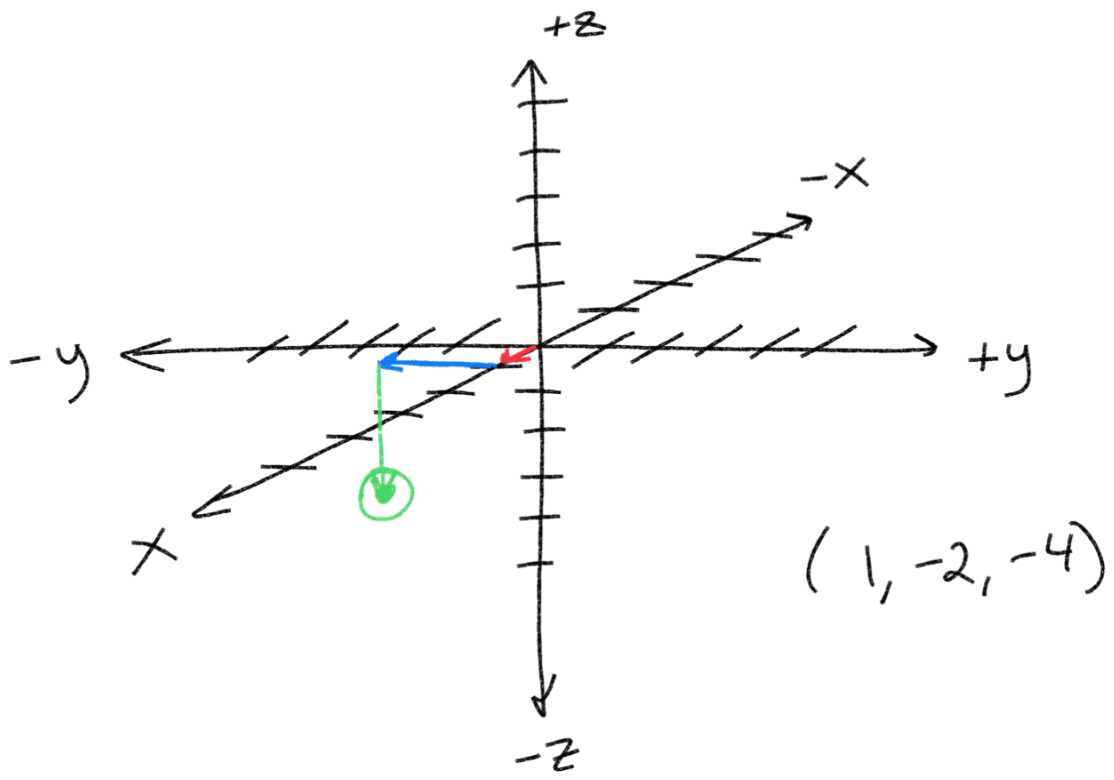
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$$\begin{aligned} -13y + 11z &= -18 \\ 13(y - z) &= 26 \end{aligned}$$

$$\begin{aligned} -13y + 11z &= -18 \\ + 13y - 13z &= 26 \\ \hline -2z &= 8 \\ \frac{-2z}{-2} &= \frac{8}{-2} \\ \boxed{z = -4} \end{aligned}$$

$$\begin{aligned} X - 8 + 20 &= 13 \\ X + 12 &= 13 \\ -12 \quad -12 \\ \hline \boxed{X = 1} \end{aligned}$$

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



$$3x + 5y + 5z = -20$$

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

$$x - 4y + 4z = 9 \quad -5(-4x + y + 2z = -30)$$

$$4(-4x + y + 2z = -30)$$
$$x - 4y + 4z = 9$$

$$-16x + 4y + 8z = -120$$
$$+ x - 4y + 4z = 9$$

$$\frac{-15x + 12z}{3} = \frac{-111}{3}$$

$$-5x + 4z = -37$$

$$-5x + 4z = -37$$

$$-5(5) + 4z = -37$$

$$-25 + 4z = -37$$
$$+25 \quad +25$$

$$\frac{4z}{4} = \frac{-12}{4}$$

$$z = -3$$

$$(5, -4, -3)$$

$$3x + 5y + 5z = -20$$

$$+ 20x - 5y - 10z = 150$$

$$23x - 5z = 130$$

$$4(23x - 5z = 130)$$
$$5(-5x + 4z = -37)$$

$$92x - 20z = 520$$

$$+ -25x + 20z = -185$$

$$\frac{67x}{67} = \frac{335}{67}$$

$$x = 5$$

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

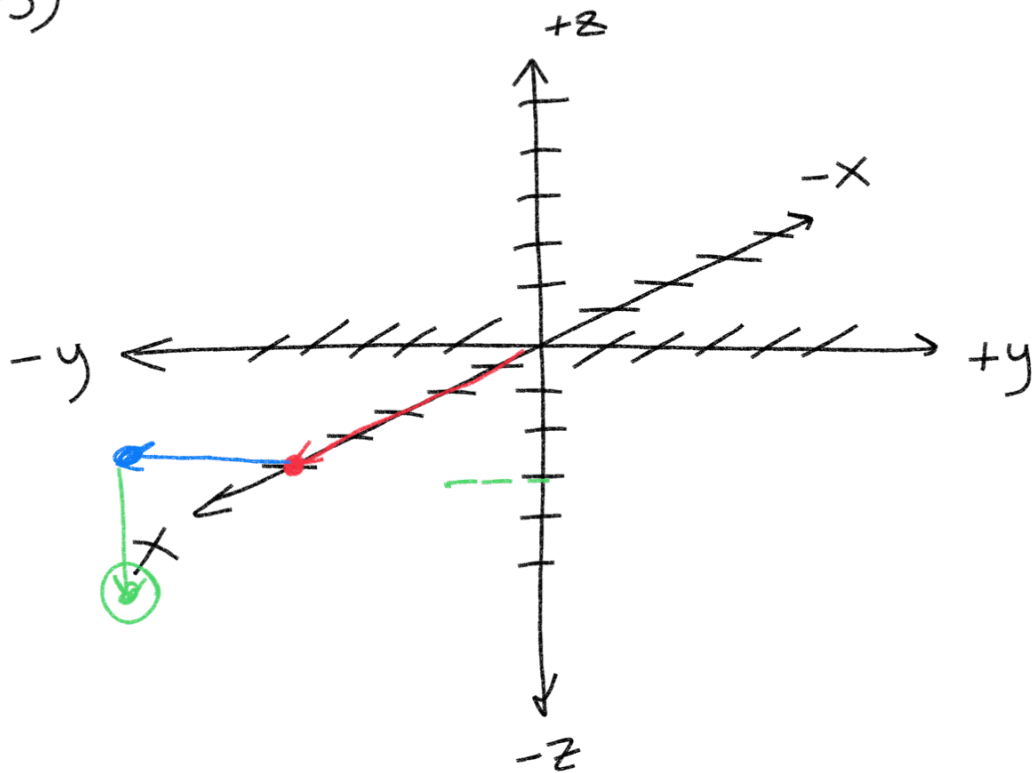
$$-4(5) + y + 2(-3) = -30$$

$$-20 + y - 6 = -30$$

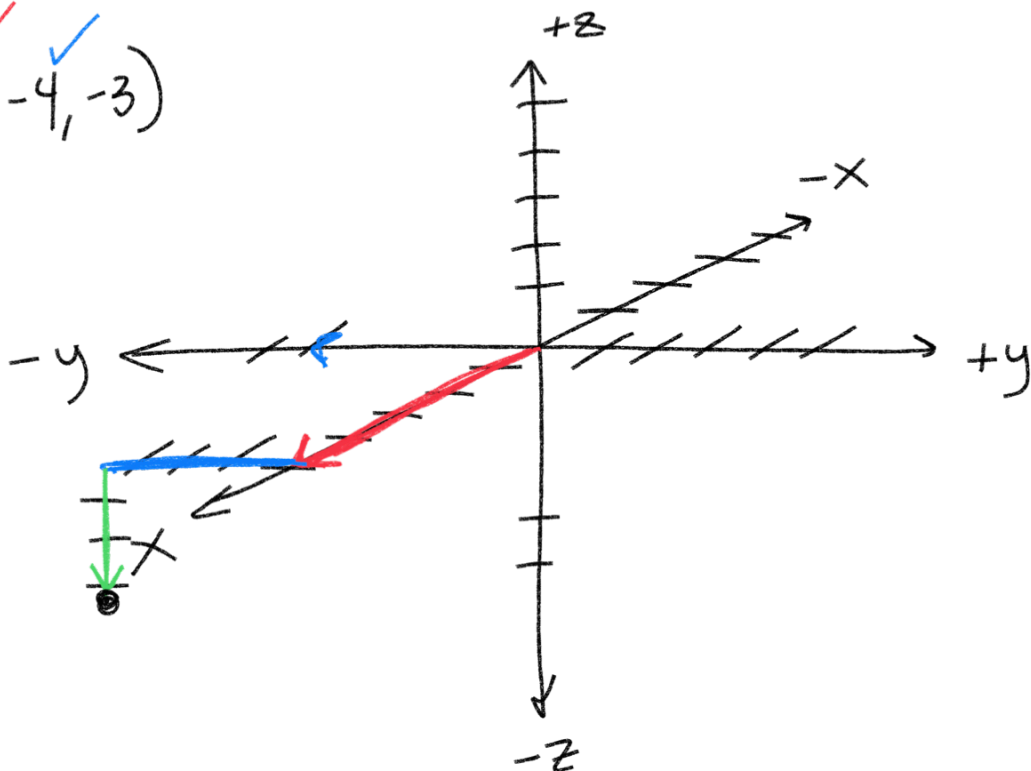
$$y - 26 = -30$$
$$+26 \quad +26$$

$$y = -4$$

$(5, -4, -3)$



$(5, -4, -3)$



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

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

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

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