

SUBSTITUTION

$$18) \begin{cases} -2x + y + 6z = 1 \\ 3x + 2y + 5z = 16 \\ 7x + 3y - 4z = 11 \end{cases} \rightarrow y = (2x - 6z + 1)$$

$$\rightarrow 3x + 2(2x - 6z + 1) + 5z = 16$$

$$3x + 4x - 12z + 2 + 5z = 16$$

$$7x - 7z + 2 = 16$$

$$\textcircled{A} \quad 7x - 7z = 14 \rightarrow x - z = 2$$

$$\rightarrow 7x + 3(2x - 6z + 1) - 4z = 11$$

$$7x + 6x - 18z + 3 - 4z = 11$$

$$13x - 22z + 3 = 11$$

$$\textcircled{B} \quad 13x - 22z = 8$$

$$\rightarrow x = z + 2 \quad \textcircled{A}$$

$$13(z + 2) - 22z = 8$$

$$13z + 26 - 22z = 8$$

$$13z - 22z = -18$$

$$-9z = -18$$

$$z = 2$$

$$x = (z + 2)$$

$$x = 4$$

$$y = 2(4) - 6(z)$$

$$y = 8 - 12 + 1$$

$$y = -3$$

ELIMINATION

$$\begin{cases} -2x + y + 6z = 1 \\ 3x + 2y + 5z = 16 \\ 7x + 3y - 4z = 11 \end{cases}$$

$$-3(2x + y + 6z = 1)$$

$$6x - 3y - 18z = -3$$

$$7x + 3y - 4z = 11$$

$$\textcircled{B} \quad 13x - 22z = 8$$

$$13x - 22z = 8$$

$$-13x + 13z = -26$$

$$-9z = -18$$

$$\boxed{z = 2}$$

$$-2(-2x + y + 6z = 1)$$

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

$$3x + 2y + 5z = 16$$

$$\textcircled{A} \quad 7x - 7z = 14$$

$$x - z = 2$$

$$(-13(x - z = 2))$$

Alg. II Honors

10/25/10
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Savings Account - x
CD - y
Bonds - z

\$20,000 Total

\$1,000 Interest Total

$$\begin{aligned} x + y + z &= 20,000 \\ .02x + .05y + .06z &= 1000 \\ y &= 2z \end{aligned}$$

← (CDs = Twice as many Bonds)

$$\begin{aligned} 400 + .1z &= 1000 \\ \frac{.1z}{.1} &= \frac{600}{.1} \end{aligned}$$

$$\begin{aligned} y &= 2(6,000) \\ y &= 12,000 \end{aligned}$$

read ex. 4 pg. 180 } due wed. 10/27
do pg. 181 #11, 35, 36, 42 }