Secondary 3 Honors

Notes: Solving Systems of 3 Equations

Solve the following 3 equations:

- a) 3x + 2y + 4z = 11
- b) 2x y + 3z = 4
- c) 5x 3y + 5z = -1

a)
$$3x+2y+4z=11$$

b) $(2x-y+3z=4)(2)$

$$3x+2y+47=11$$

 $4x-2y+67=8$
 $7x+107=19$

$$-6x + 3y - 9z = -12$$

 $-5x - 3y + 5z = -1$
 $-1x - 4z = -13$

$$7x+40=19$$

$$\frac{7X = -21}{7}$$

$$X = -3$$

$$7x+10z=19$$

 $(-x-4z=-13)(7)$

$$+ \frac{7x+10z=19}{-1x-28z=-91}$$

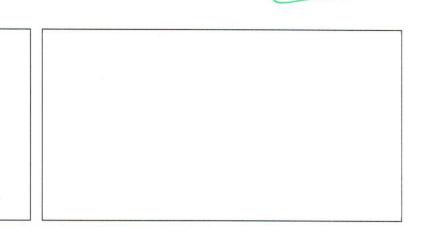
$$\frac{187}{-18} = \frac{-12}{-18}$$

Solve the following 3 equations:

- a) x + y + z = 2
- b) 3x + 3y + 3z = 14
- c) x 2y + z = 4

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

 $3x+3y+3z=14$



NO SOLUTION

Solve

The University of Utah and Brigham Young University scored a total of 39 points during the 2015 Las Vegas Bowl. The points came from a total of 11 different scoring plays, which were a combination of touchdowns, extra-point kicks, and field goals, worth 6, 1, and 3 points respectively. The same numbers of touchdowns and field goals were scored. How many touchdowns, extra-point kicks, and field goals were scored during the game?

$$T, k, F$$
 $6T + 1k + 3F = 39$ $T = F$
 $T + k + F = 11$
 $T - F = 0$

$$6T+1k+3F=39$$

 $(T+k+F=11)(-6)$
 $6T+1k+3F=39$
 $-6T-6k-6F=-66$
 $-5k-3F=-27$

$$T+K+F=11$$

 $(T+0K-F=0)(-1)$
 $T+K+F=11$
 $-T+0K+F=0$
 $K+2F=11$

$$3+2F=11$$
 -3
 $2F=8$
 2
 $F=4$
 $T=4$

$$(-5k-3F=-27)(2)$$

$$(k+2F=11)(3)$$

$$-10k-6F=-54$$

$$+3k+6F=33$$

$$-7k=-21$$

$$-7=-7$$

$$t=3$$

There were 4 TD's, 4 FG's, 3 kicks scored during the game.