Unit 14.1 Solving Systems of Equations with 3 Variables

1. Solve the systems of equations using any method

a. $2y - z = 5$
$3y = 9$
$4x - y + 3z = -8$

b. $2z = -2$
$2y + 5z = 7$
$4x + 5y + 6z = 4$

c. $-x + 4y + z = 10$
$x + 2y + 3z = 4$
$2x - 3y + 2z = -7$

d. $2x + 3y - z = 16$
$x - y + 3z = -9$
$5x + 2y - z = 15$

e. $x + y - 2z = 4$
$2x + y = 1$
$5x + 3y - 2z = 6$

f. $2x + 3y + z = 4$
$3x - 5y + 2z = -5$
$4x - 6y + 3z = -7$

g. $x - y + 2z = -4$
$2x + 3y + z = ½$
$x + 4y - 2z = 4$

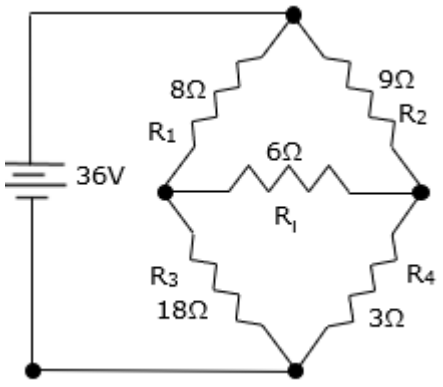
2. Lucy works the tech support line for Dish Network. They track how many calls she took each day. If over the last 3 days, she received a total of 65 calls and on day three, she took 5 fewer calls than the first day. On day two, she took twice as many calls than day 3. How many calls did she take per day?

3. Solve these equations for the circuit below using Ohms Law and Kirchhoff's Laws

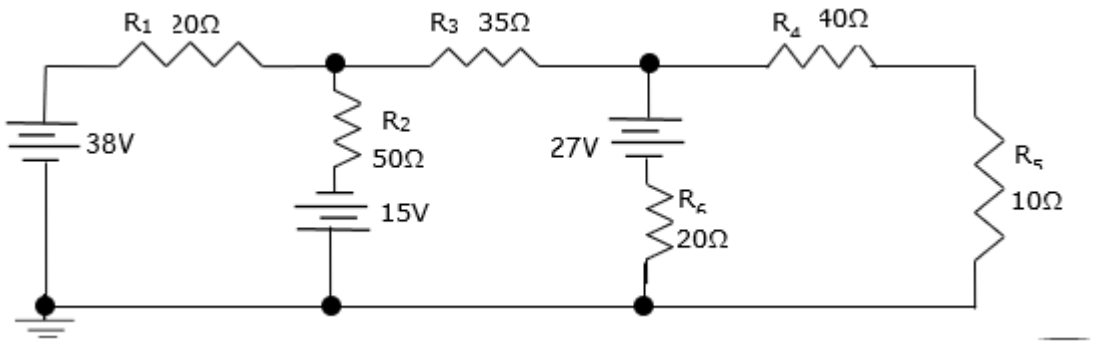
$-26(I_1) + 18(I_2) + 8(I_3) = -36$ eq. 1

$18(I_1) - 27(I_2) + 6(I_3) = 0$ eq. 2

$-26(I_1) + 18(I_2) + 8(I_3) = -36$ eq. 3



4. Solve these equations for the circuit below and complete the table below using Ohms Law and Kirchhoff's Laws



	R	V	I
R_1			
R_2			
R_3			
R_4			
R_5			
R_6			