Substitution Method

1.
$$y = -4 - 4x$$
 $y = -x - 1$

2.
$$y = x - 3$$
 $y = 3x - 11$

3.
$$x = y + 8$$
 $x = -.5y + 2$

4.
$$x = y + 4$$
 $x = 3y - 11$

1.
$$y = 8 + 3x$$
 $y = -2 + x$ 2. $x = -4y - 2$ $x = -2y + 1$

1) Suppose a video store charges nonmembers \$4 to rent each video. While a store membership costs \$21 and members pay only \$2.50 to rent each video. For what number of videos is the cost the same.

2) Suppose your club is selling candles to raise money. The candles cost \$1 to make and it will costs \$100 to rent a booth. You plan to sell the candles for \$5 each, how many candles must be sold for you to break even

- 1) Wendy is starting a catering business and is attempting to figure out who she should be using to transport the food to different locations. She has found two trucking companies that are willing to make sure her food arrives in tact. Peter's Pick Up charges \$0.40 per mile and charges a one time fee of \$68. Helen's Hauler's charges \$0.65 per mile and charges a one time fee of \$23.
- a) For what distance would the cost of transporting the food be the same for both companies.
- b) What would the cost be?

1.
$$y = 2 + x$$
 $2x + y = 8$

2.
$$x = -3 - y$$
 $3x + y = 3$

3.
$$x = 4 + y$$
 $3x + y = 0$

4.
$$y = x + 17$$
 $4x + y = 2$

1.
$$y = -3 + 3x -2x + 5y = 11$$

2.
$$y = 7 + 3x$$
 $2x - 3y = -14$

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

4.
$$y+4=x$$
 $-3x-y=-8$

1.
$$y = -3 + 3x -2x + 5y = 11$$

2.
$$y = 7 + 3x$$
 $2x - 3y = -14$

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

4.
$$y+4=x$$
 $-3x-y=-8$

1.
$$-7x + y = -19$$
 $-2x + 3y = -19$

2.
$$5x + y = 9$$
 $10x - 7y = -18$

3.
$$x-3y=-6$$
 $-4x+9y=9$

4.
$$x+4y=1$$
 $2x+7y=3$

1.
$$x + y = -3$$
 $3x + y = 3$

2.
$$x - y = 4$$
 $x - 2y = 10$

3.
$$3x + y = 0$$
 $x - y = 4$

4.
$$3x - y = 9$$
 $2x + y = 6$

1.
$$y = -2 + 5x$$
 $-x + 2y = -4$

2.
$$y-5x=-7$$
 $-3x-2y=-12$

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

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

Solve the system of equations using the substitution method(Special Solutions)

1.
$$y = 1 + 2x$$
 $y = -3 + 2x$

2.
$$y = 2 - 2x$$
 $y = -2x + 2$

3.
$$y = 2 - x$$
 $y = x - 2$

4.
$$y = -1 - x$$
 $y = 8 - x$

Solve the system of equations using the substitution method(Special Solutions)

1.
$$y = 2 - 2x$$
 $6x + 3y = 6$

2.
$$x = 2 + 3y$$
 $-2x + 6y = 2$

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

4.
$$x = 2 + y$$
 $6x + 3y = 6$

Solve the system of equations using the substitution method(Special Solutions)

1.
$$2x + y = 2$$
 $-2x - y = 0$

2.
$$x-3y=2$$
 $-2x+6y=2$

3.
$$-9x+3y=-6$$
 $-3x+y=-2$

4.
$$x - y = 2$$
 $7x - 7y = 14$

1.
$$2x + y = 2$$
 $-2x - y = 0$

2.
$$x-3y=2$$
 $-2x+6y=2$

3.
$$-9x + 3y = -6$$
 $-3x + y = -2$

4.
$$x - y = 2$$
 $7x - 7y = 14$