

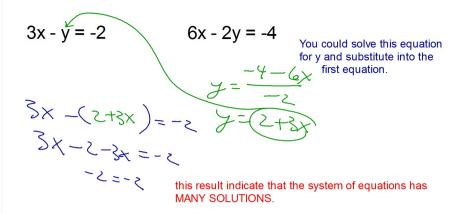
You can now finish Hwk #3 Sec 7-2

Pages 350-351

Problems 9, 10, 13, 18, 22, 24, 39, 41-43

**Due Thursday** 

### Solve this system of equations using Substitution:



Would this system of equations be easy to solve using substitution?

$$2x + 5y = 3$$
  $3x - 5y = 17$ 

No. Regardless of which equation or which variable to try to solve for you would introduce fractions into the problem. This will still lead to the same solution but it may make it more difficult to solve.

# Sec 7-3: Solving systems of equations using ELIMINATION

#### Solving by elimination may involve:

- Just adding or subtracting the two equations
- Multiplying one of the equations by a constant then adding or subtracting.
- Multiplying both equations by a constant then adding or subtracting.

#### Solve this system of equations using Elmination.

Since the F terms are already the same you only have to subtract the equations to eliminate F.

Now find F.

## Solve this system of equations using ELIMINATION

$$2x + 5y = 3$$
  
 $3x - 5y = 17$ 

$$2x + 5y = 3$$
 or  $2x + 5y = 3$   $8 + 5y = 3$   $3x - 5y = 17 + 3x - 5y = 17 - 8 - 8$ 

Since the y's are already opposites you only need to add the equations together to eliminate y.

### Solve this system of equations using Elmination.

$$6c + 5d = 9$$
  $6c + 5d = 9$   
 $4c - d = -7$   $4c - d = -7$ 

or 
$$6c + 5d = 9 \rightarrow 6c + 5d = 9$$
  
 $5(4c - d = -7) + 20c - 5d = -3$ 

Now find d.

$$6(-1) + 5d = 9$$
 $-6 + 5d = 9$ 
 $+10 + 6$ 
 $5d = 15$ 
 $5 = 15$ 

because the d's already have opposite signs and you only have to multiply the second equation by 5, eliminating d looks easier. 
$$\frac{26C = -26}{26}$$



Solve this system of equations using Elmination. Since you would only have to multiply the 9a + 8b = 4 9a + 8b = 4 or 9a + 8b = 4 or 9a + 8b = 4

now find a.

$$9a + 8(-4) = 4$$
 $9a + -32 = 4$ 
 $9a = 36$ 
 $9a = 36$ 

