MFM2P-Aly 2.5 Solving a Linear System by Elimination Day 1 Date:_____

Methods to solve a system of equations (find POI):

1. _____ 2. _____ 3. _____

Ex.1 Find the POI of: 2x + y = 9 and 3x - y = 16

Steps:
1. Line up our equations one above the other.
2. Label the equations (1) and (2)
3. Determine which variables have the same numbers.
4. Decide if adding (different signs) or Subtracting (same sign) to eliminate one variable.
5. Solve for the other variable.
6. Sub. value into one of the original equations to solve for other variable.
7. Write the POI.

Ex. 2 Find the POI of: $7x + 3y = 14$ and $7x + 2y = 21$

Solve the following equations by elimination:

1) $6x + 4y = 16$
   $6x - 12y = 48$

2) $3x + 2y = -13$
   $-3x - 4y = -1$

3) $7y + 8x = 14$
   $5y + 8x = 8$

4) $7x - 5y = -24$
   $9x - 5y = -18$

Solutions: 1. (4,-2) 2. (-9, 7) 3. (-7/8, 3) 4. (3,9)