

WORKSHEET #3 - Systems of Eqns (Subst. and Elimn.) Date _____ Period _____

Solve each system by substitution. Then CHECK your solution. (EXAMPLE)

$$\begin{aligned} 1) \quad & 3x - 4y = 2 \\ & -2x + 6y = -18 \end{aligned}$$

Solve each system by substitution. Then CHECK your solution.

$$\begin{aligned} 2) \quad & y = -2x + 1 \\ & 2x - 2y = 4 \end{aligned}$$

$$\begin{aligned} 3) \quad & y = 2x + 4 \\ & -5x - 5y = -5 \end{aligned}$$

$$\begin{aligned} 4) \quad & y = 4x - 11 \\ & 4x - y = 11 \end{aligned}$$

$$\begin{aligned} 5) \quad & -3x - 3y = -18 \\ & y = -6x + 21 \end{aligned}$$

$$\begin{aligned} 6) \quad & 8x - 8y = -24 \\ & 3x + y = 23 \end{aligned}$$

$$\begin{aligned} 7) \quad & -4x - 2y = -12 \\ & 2x + y = 6 \end{aligned}$$

$$\begin{aligned} 8) \quad & 5x + 5y = 20 \\ & x - 2y = 13 \end{aligned}$$

$$\begin{aligned} 9) \quad & 2x + y = 7 \\ & -2x - y = 6 \end{aligned}$$

$$\begin{aligned} 10) \quad & 6x - 2y = -12 \\ & x - 6y = -19 \end{aligned}$$

$$\begin{aligned} 11) \quad & 2x - y = -1 \\ & -5x + y = -5 \end{aligned}$$

$$\begin{aligned} 12) \quad & x - y = -2 \\ & -2x + 2y = 2 \end{aligned}$$

$$\begin{aligned} 13) \quad & 5x - 7y = -2 \\ & x - 4y = -3 \end{aligned}$$

$$\begin{aligned} 14) \quad & x + 3y = 7 \\ & -4x - 8y = -20 \end{aligned}$$

$$\begin{aligned} 15) \quad & -2x + 16y = -34 \\ & x - 8y = 17 \end{aligned}$$

$$\begin{aligned} 16) \quad & 8x + 4y = -20 \\ & 6x + 6y = -18 \end{aligned}$$

$$\begin{aligned} 17) \quad & -7x + 7y = -21 \\ & 4x - 2y = 22 \end{aligned}$$

Solve each system by substitution. Then CHECK your solution. (Day 2)

$$\begin{aligned} 18) \quad & -2x - 5y = 17 \\ & y = -4x + 11 \end{aligned}$$

$$\begin{aligned} 19) \quad & 2x - 4y = 24 \\ & -6x + 4y = -24 \end{aligned}$$

$$\begin{aligned} 20) \quad & 2x + 16y = 4 \\ & -x - 8y = 0 \end{aligned}$$

$$\begin{aligned} 21) \quad & 2x - 4y = 20 \\ & -6x + y = 6 \end{aligned}$$

$$\begin{aligned} 22) \quad & 4x + 7y = -6 \\ & x + 6y = -10 \end{aligned}$$

$$\begin{aligned} 23) \quad & -12x - 15y = -9 \\ & 4x + 5y = 3 \end{aligned}$$

$$\begin{aligned} 24) \quad & -4x + 4y = -8 \\ & 4x - 6y = 16 \end{aligned}$$

$$\begin{aligned} 25) \quad & 2x - 6y = 4 \\ & -4x + 12y = -6 \end{aligned}$$

$$\begin{aligned} 26) \quad & 5x - 6y = 4 \\ & -7x - 6y = -20 \end{aligned}$$

$$\begin{aligned} 27) \quad & -3x + 2y = 17 \\ & x - 5y = -10 \end{aligned}$$

$$\begin{aligned} 28) \quad & 2x + 4y = 7 \\ & x + 2y = 3 \end{aligned}$$

$$\begin{aligned} 29) \quad & 4x + 6y = 22 \\ & -2x + 4y = 10 \end{aligned}$$

$$\begin{aligned} 30) \quad & 2x - y = 16 \\ & -6x - 3y = -24 \end{aligned}$$

$$\begin{aligned} 31) \quad & 8x - 2y = 8 \\ & -4x + y = -4 \end{aligned}$$

$$\begin{aligned} 32) \quad x - y &= 0 \\ -6x + 5y &= 4 \end{aligned}$$

$$\begin{aligned} 33) \quad 4x + 4y &= -8 \\ 3x - 2y &= 19 \end{aligned}$$

Solve each system by elimination. Then CHECK your solution. (EXAMPLE)

$$\begin{aligned} 34) \quad 8x + 7y &= -2 \\ 9x + 8y &= -3 \end{aligned}$$

Solve each system by elimination. Then CHECK your solution. (Day 3)

$$\begin{aligned} 35) \quad -8x - 10y &= 28 \\ 4x + 10y &= -24 \end{aligned}$$

$$\begin{aligned} 36) \quad 5x - 7y &= -2 \\ -5x - 10y &= -15 \end{aligned}$$

$$\begin{aligned} 37) \quad 3x - 2y &= 17 \\ 6x + 2y &= 10 \end{aligned}$$

$$\begin{aligned} 38) \quad -5x + 3y &= -1 \\ 5x - 3y &= -4 \end{aligned}$$

$$\begin{aligned} 39) \quad 5x - 14y &= 22 \\ -6x + 7y &= 3 \end{aligned}$$

$$\begin{aligned} 40) \quad 6x - 7y &= -8 \\ -x - 4y &= -9 \end{aligned}$$

$$\begin{aligned} 41) \quad -24x + 6y &= 18 \\ -8x + 2y &= 6 \end{aligned}$$

$$\begin{aligned} 42) \quad 4x - 2y &= -4 \\ -6x + 6y &= 30 \end{aligned}$$

$$\begin{aligned} 43) \quad 12x + 2y &= -26 \\ 6x - 9y &= -3 \end{aligned}$$

$$\begin{aligned} 44) \quad 16x - 8y &= 16 \\ 8x - 4y &= 8 \end{aligned}$$

$$\begin{aligned} 45) \quad -6x - 8y &= 10 \\ 2x - 4y &= 10 \end{aligned}$$

$$\begin{aligned} 46) \quad -3x - 2y &= -23 \\ 6x + 12y &= 30 \end{aligned}$$

$$\begin{aligned} 47) \quad -10x + 10y &= 0 \\ -20x + 20y &= 20 \end{aligned}$$

$$\begin{aligned} 48) \quad -x + 4y &= 25 \\ 3x - y &= 13 \end{aligned}$$

$$\begin{aligned} 49) \quad 10x + 7y &= -9 \\ -5x - 3y &= 6 \end{aligned}$$

$$\begin{aligned} 50) \quad 20x - 18y &= -24 \\ -10x + 9y &= 12 \end{aligned}$$

Solve each system by elimination. Then CHECK your solution. (Day 4)

$$\begin{aligned} 51) \quad -7x - 8y &= -19 \\ 7x + 10y &= 29 \end{aligned}$$

$$\begin{aligned} 52) \quad -3x + 2y &= -18 \\ 8x - 2y &= 28 \end{aligned}$$

$$\begin{aligned} 53) \quad 16x + 7y &= 26 \\ 8x - 2y &= -20 \end{aligned}$$

$$\begin{aligned} 54) \quad -4x - 8y &= 8 \\ 8x + 16y &= -16 \end{aligned}$$

$$\begin{aligned} 55) \quad -x + 10y &= -10 \\ -7x + 20y &= -20 \end{aligned}$$

$$\begin{aligned} 56) \quad -5x - 3y &= -19 \\ -10x - 6y &= -28 \end{aligned}$$

$$\begin{aligned} 57) \quad 5x - 7y &= -28 \\ 2x - 2y &= -12 \end{aligned}$$

$$\begin{aligned} 58) \quad -4x + 9y &= -17 \\ 3x - 4y &= 10 \end{aligned}$$

$$\begin{aligned} 59) \quad 2x - 4y &= 6 \\ -7x + 14y &= -14 \end{aligned}$$

$$\begin{aligned} 60) \quad -2x - 7y &= 22 \\ -7x - 5y &= -1 \end{aligned}$$

$$\begin{aligned} 61) \quad -4x + 7y &= 8 \\ -3x + 4y &= 6 \end{aligned}$$

$$\begin{aligned} 62) \quad 8x + 4y &= 20 \\ -10x - 5y &= -25 \end{aligned}$$

$$\begin{aligned} 63) \quad -3x - 6y &= 3 \\ -7x + 10y &= -17 \end{aligned}$$

$$\begin{aligned} 64) \quad 9x - 9y &= 0 \\ 6x - 2y &= -20 \end{aligned}$$

$$\begin{aligned} 65) \quad -6x + 3y &= 6 \\ 8x - 4y &= -12 \end{aligned}$$

$$\begin{aligned} 66) \quad 5x - 10y &= -10 \\ 4x + 8y &= 24 \end{aligned}$$

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$$\begin{aligned} 2) \quad & y = -2x + 1 \quad (1, -1) \\ & 2x - 2y = 4 \end{aligned}$$

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$$\begin{aligned} 4) \quad & y = 4x - 11 \quad \text{Infinite number of solutions} \\ & 4x - y = 11 \end{aligned}$$

$$\begin{aligned} 5) \quad & -3x - 3y = -18 \quad (3, 3) \\ & y = -6x + 21 \end{aligned}$$

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$$\begin{aligned} 8) \quad & 5x + 5y = 20 \quad (7, -3) \\ & x - 2y = 13 \end{aligned}$$

$$\begin{aligned} 9) \quad & 2x + y = 7 \quad \text{No solution} \\ & -2x - y = 6 \end{aligned}$$

$$\begin{aligned} 10) \quad & 6x - 2y = -12 \quad (-1, 3) \\ & x - 6y = -19 \end{aligned}$$

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$$\begin{aligned} 13) \quad & 5x - 7y = -2 \quad (1, 1) \\ & x - 4y = -3 \end{aligned}$$

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$$\begin{aligned} 18) \quad & -2x - 5y = 17 \quad (4, -5) \\ & y = -4x + 11 \end{aligned}$$

$$\begin{aligned} 19) \quad & 2x - 4y = 24 \quad (0, -6) \\ & -6x + 4y = -24 \end{aligned}$$

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$$45) \begin{cases} -6x - 8y = 10 & (1, -2) \\ 2x - 4y = 10 \end{cases}$$

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