

Your name _____

Assignment # 9 Points 15

Tech Math Off-site Instruction Packet Cover Page (Periods 1,2,4)

Students, You can contact me with questions or just to say hi.

Email: LEWISJU@mwood.cc (Put your name in the subject line so I know who you are!!). I will be checking mail multiple times each day.

Topic of this assignment: 17.3 Solving systems of equations using Elimination (addition/subtraction) method.

What you need to know: This is another Algebra method used to solve systems of equations without graphing.

What you need to do: See problems #6 & #9.

Complete remaining 1-12

Suggested Youtube/Google search: "Solving systems of equations by elimination"

* Show work for full credit.

Technical Math
Section 17.3

Name _____

Solve each of the following systems of equations by the addition or subtraction method.

1. $\begin{cases} x+y=5 \\ x-y=1 \end{cases}$

2. $\begin{cases} x=y-4 \\ x+y=8 \end{cases}$

3. $\begin{cases} 2x-y=5 \\ 6x+y=27 \end{cases}$

4. $\begin{cases} y=-3x+11 \\ 4x+y=14 \end{cases}$

5. $\begin{cases} 6x-3y=27 \\ x+3y=8 \end{cases}$

6. $\begin{cases} 4x+7y=70 \\ 6x-7y=0 \end{cases}$ eliminate by addition

$$\begin{array}{r} 4x + 7y = 70 \\ + 6x - 7y = 0 \\ \hline 10x = 70 \\ x = 7 \end{array}$$

$4(7) + 7y = 70$
 $28 + 7y = 70$
 $7y = 42$
 $y = 6$

$(7, 6)$

$y = 6$ (9)

7.
$$\begin{cases} -2x - 3y = -13 \\ 6y = 2x + 14 \end{cases}$$

8.
$$\begin{cases} x + 6y = 19 \\ x - 2y = -13 \end{cases}$$

9.
$$\begin{cases} 9x = 32 - 10y \\ -3x + 10y = 56 \end{cases}$$

$$\begin{array}{r} 9x = 32 - 10y \\ +10y \quad +10y \end{array}$$

$$\begin{array}{r} 9x + 10y = 32 \\ -3x + 10y = 56 \end{array}$$

wrong side

Same signs -
subtract to
eliminate y

$$12x = -24$$

$$x = -2$$

$$\begin{aligned} -3(-2) + 10y &= 56 \\ 6 + 10y &= 56 \end{aligned}$$

$$10y = 50$$

$$y = 5$$

11.
$$\begin{cases} 5x - 3y = -9 \\ 7x - 3y = -23 \end{cases}$$

$$(-2, 5)$$

12.

$$\begin{cases} -7x = -2 - 8y \\ -5x - 8y = 26 \end{cases}$$

10.

$$\begin{cases} 6x + 4y = 72 \\ 7x + 4y = 80 \end{cases}$$