

Your name \_\_\_\_\_

Assignment # 7 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](mailto: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: 17.2 Solving systems of Equations by SUBSTITUTION

What you need to know: Substitution is an algebra method used to solve a system of equations without graphing.

What you need to do: See #3 & #6. Search online as needed. Complete remaining problems 1-12.

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

\* Show work for full credit.

Technical Math  
Section 17.2

Name \_\_\_\_\_

Solve each of the following systems of equations by the substitution method.

1. 
$$\begin{cases} x = y + 4 \\ 3x + 7y = 18 \end{cases}$$

2. 
$$\begin{cases} x = y - 1 \\ 3x + 2y = -13 \end{cases}$$

3. 
$$\begin{cases} x = 2y \\ 7y - 4x = -3 \end{cases}$$

4. 
$$\begin{cases} x = 4y \\ x - 5y = 2 \end{cases}$$

$x = 2y$   
 $7x - 4(\quad) = -3$   
 $7x - 4(2y) = -3$   
 $x = 2(3)$   
 $7x - 8y = -3$   
 $x = 6$   
 $-y = -3$   
 $y = 3$   
 $(6, 3)$

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

6. 
$$\begin{cases} y = 3x + 2 \\ 9x - 7y = 22 \end{cases}$$

$9x - 7(3x + 2) = 22$   
 $9x - 21x - 14 = 22$   
 $\quad \quad \quad +14 \quad +14$   
 $-12x = 36$   
 $x = -3$   
 $y = 3(-3) + 2$   
 $y = -9 + 2$   
 $y = -7$   
 $(-3, -7)$   
#7

$$7. \begin{cases} x = 4y - 5 \\ 5y - x = 4 \end{cases}$$

$$8. \begin{cases} y = 8 - 3x \\ 4x - 5y = -2 \end{cases}$$

$$9. \begin{cases} y = x + 2 \\ 2x - y = 1 \end{cases}$$

$$10. \begin{cases} y = -3x \\ 2x - 3y = 22 \end{cases}$$

$$11. \begin{cases} y = 3x \\ 2x - 3y = -7 \end{cases}$$

$$12. \begin{cases} y = -2x \\ 6x - 4y = -70 \end{cases}$$