

3. Margie and Glenn are trying to solve the following system of equations.

$$5x - 4y = 23$$

$$7x + 8y = 5$$

Glenn thinks that the elimination method will not work. Margie is not so sure about that. Decide whether Glenn is correct and write a few sentences justifying your conclusion. If the elimination method will work, show how. If not, use another method to solve the system.

4. Examine the following systems of equations. Decide for each system which method would be the most efficient, convenient, and accurate: graphing, substitution, elimination, or the equal values method. Justify your reasons for choosing one strategy over the others, and then solve each system.

a. $x = -2y + 6$
 $x = 3 - 4y$

b. $y = 4$
 $y = -\frac{2}{3}x + 4$

c. $a + b = 8$
 $3a - 4b = 3$

5. Earl solved a system of equations using substitution. Did he do it correctly? How do you know? If he did not, find his error and solve the system correctly.

System: $x + y = 3$
 $2y - 3x = 16$

Earl's solution: $2(3 - x) - 3x = 16$
 $6 - x - 3x = 16$
 $6 - 4x = 16$
 $6 - 6 - 4x = 16 - 6$
 $-4x = 10$
 $\frac{-4x}{4} = \frac{10}{-4}$
 $x = -2.5 \quad y = 5.5$