*10 questions
* Take your time – use the lessons and your notes if you need them
* Check your answers by using the online quiz feature – input your selections for each question

Concept of Systems

1. True or False? Linear systems can be solved by using a graph.
   a. True
   b. False
2. Given any linear system- what could be the possible solutions?
   a. system will always have one solution
   b. system has two solutions because there are two equations
   c. system will have three solutions
   d. system will either have one solution, no solutions or infinite many solutions

Solving Systems

3. Determine if $(2, 1)$is a solution to the system: $\begin{Bmatrix} 5x + y = 11 \\ 3x - 2y = 4 \end{Bmatrix}$
   a. Yes, it is a solution
   b. No, not a solution

4. Solve using the Substitution Method: $\left\{\begin{array}{l} x-2y=0 \\ -3x+4y=10 \end{array}\right\}$

   a. $(6,3)$

   b. $(5,10)$

   c. $(-10,-5)$

   d. no solution

5. Solve using the Elimination/Linear Combination Method: $\left\{\begin{array}{l} x-y=4 \\ 3x-2y=14 \end{array}\right\}$

   a. $(3,6)$

   b. $(1,6)$

   c. $(3,5)$

   d. $(6,2)$

6. Solve the system: $\left\{\begin{array}{l} 7x-3y=26 \\ 2x+5y=25 \end{array}\right\}$

   a. $(5,3)$

   b. $(-5,-\frac{61}{3})$

   c. infinitely many solutions

   d. no solution

7. Solve the system: $\begin{Bmatrix} 2x + 4y = 7 \\ 3x + 6y = 5 \end{Bmatrix}$

   a. $(0, 0)$

   b. $(1, \frac{5}{4})$

   c. $(2, -7)$

   d. no solution

8. Solve the system: $\begin{Bmatrix} 7x + y = 3 \\ 21x + 5y = 11 \end{Bmatrix}$

   a. $(1, 7)$

   b. $(\frac{2}{7}, 1)$

   c. $(-4, 9)$

   d. no solution

9. Solve the system: $\begin{Bmatrix} 2x - 5y = -4 \\ 4x + 3y = 5 \end{Bmatrix}$

   a. $(\frac{1}{2}, 1)$

   b. $(5, 2)$

   c. $(2, 0)$

   d. no solution

10. Solve the system: $\begin{Bmatrix} 6x + y = -2 \\ 4x - 3y = 17 \end{Bmatrix}$

a. $(1, -10)$

b. $(5, 1)$

c. $(\frac{1}{2}, -5)$

d. no solution