Quiz 1.9: Solving Systems of Linear Equations

Multiple Choice: *Choose the letter that corresponds to the correct answer. Write the answer in your answer sheet.*

1. What is the last step in solving systems of linear equations using the substitution method?
   A. Solve the resulting equation in one variable.
   B. Check the solution in the original equations.
   C. Substitute the expression obtained into the other equation.
   D. Solve one equation for one variable in terms of the other variable.

2. What is the last step in solving systems of linear equations using the elimination method?
   A. Add the resulting equations.
   B. Choose which variable you want to eliminate.
   C. Check the solution in the original equations.
   D. Multiply one or both equations by an appropriate constant.

3. What is the first step in solving systems of linear equations using the substitution method?
   A. Solve the resulting equation in one variable.
   B. Check the solution in the original equations.
   C. Substitute the expression obtained into the other equation.
   D. Solve one equation for one variable in terms of the other variable.

4. What is the first step in solving systems of linear equations using the elimination method?
   A. Add the resulting equations.
   B. Choose which variable you want to eliminate.
   C. Check the solution in the original equations.
   D. Multiply one or both equations by an appropriate constant.

5. To solve the system $\begin{cases} x+y &= 7 \\ x-y &= 1 \end{cases}$ using the elimination method, which variable should be eliminated first?
   A. x B. y C. 7 and 1 D. both x and y

6. To solve the system $\begin{cases} 4x-y &= 8 \\ 3x+2y &= 6 \end{cases}$ using the elimination method, which constant must be multiplied to the first equation?
   A. -2 B. -1 C. 2 D. 3

7. Solve the system $\begin{cases} x+4y &= 8 \\ x-2y &= 2 \end{cases}$ using the elimination method.
   A. $\{(4,1)\}$ B. $\{(4,2)\}$ C. $\{(5,1)\}$ D. $\{(5,2)\}$

8. Solve the system $\begin{cases} y &= \frac{2}{3}x+6 \\ y &= -\frac{3}{2}x+6 \end{cases}$ using the substitution method.
   A. $\{(0,5)\}$ B. $\{(1,5)\}$ C. $\{(0,6)\}$ D. $\{(1,6)\}$

9. Solve the system $\begin{cases} x+y=5 \\ y=\frac{1}{2}x+2 \end{cases}$ using the substitution method.
   A. $\{(1,3)\}$ B. $\{(2,3)\}$ C. $\{(3,3)\}$ D. $\{(4,3)\}$

10. Solve the system $\begin{cases} x+y &= 7 \\ x-y &= 1 \end{cases}$ using the elimination method.
    A. $\{(4,1)\}$ B. $\{(4,2)\}$ C. $\{(4,3)\}$ D. $\{(4,4)\}$

Answer Key

1. What is the last step in solving systems of linear equations using the substitution method?

   Solution:

   A. Solve the resulting equation in one variable.

   B. Check the solution in the original equations.

   C. Substitute the expression obtained into the other equation.

   D. Solve one equation for one variable in terms of the other variable.

2. What is the last step in solving systems of linear equations using the elimination method?

   Solution:

   A. Add the resulting equations.

   B. Choose which variable you want to eliminate.

   C. Check the solution in the original equations.

   D. Multiply one or both equations by an appropriate constant.

3. What is the first step in solving systems of linear equations using the substitution method?

   Solution:

   A. Solve the resulting equation in one variable.

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   Solution:

   A. Add the resulting equations.

   B. Choose which variable you want to eliminate.

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   D. Multiply one or both equations by an appropriate constant.

5. To solve the system $\begin{cases} x+y &= 7 \\ x-y &= 1 \end{cases}$ using the elimination method, which variable should be eliminated first?

   Solution:

   A. x B. y C. 7 and 1 D. both x and y

6. To solve the system $\begin{cases} 4x-y &= 8 \\ 3x+2y &= 6 \end{cases}$ using the elimination method, which constant must be multiplied to the first equation?

   Solution:

   A. -2 B. -1 C. 2 D. 3

7. Solve the system $\begin{cases} x+4y &= 8 \\ x-2y &= 2 \end{cases}$ using the elimination method.

   Solution:

   A. $\{(4,1)\}$ B. $\{(4,2)\}$ C. $\{(5,1)\}$ D. $\{(5,2)\}$

8. Solve the system $\begin{cases} y &= \frac{2}{3}x+6 \\ y &= -\frac{3}{2}x+6 \end{cases}$ using the substitution method.

   Solution:

   A. $\{(0,5)\}$ B. $\{(1,5)\}$ C. $\{(0,6)\}$ D. $\{(1,6)\}$

9. Solve the system $\begin{cases} x+y=5 \\ y=\frac{1}{2}x+2 \end{cases}$ using the substitution method.

Solution:

A. $\{(1,3)\}$ B. $\{(2,3)\}$ C. $\{(3,3)\}$ D. $\{(4,3)\}$

10. Solve the system $\begin{cases} x+y &= 7 \\ x-y &= 1 \end{cases}$ using the elimination method.

Solution:

A. $\{(4,1)\}$ B. $\{(4,2)\}$ C. $\{(4,3)\}$ D. $\{(4,4)\}$