Quiz 1.8: Graphing Systems of Linear Equations

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

1. Which ratio will determine that a system of linear equations is consistent-dependent?

   A. $\frac{a_1}{a_2} \neq \frac{b_1}{b_2}$ B. $\frac{a_1}{a_2} = \frac{b_1}{b_2} \neq \frac{c_1}{c_2}$ C. $\frac{a_1}{a_2} \neq \frac{b_1}{b_2} = \frac{c_1}{c_2}$ D. $\frac{a_1}{a_2} = \frac{b_1}{b_2} = \frac{c_1}{c_2}$

2. Which kind of system has the ratios $\frac{a_1}{a_2}$ and $\frac{b_1}{b_2}$ unequal?

   A. Consistent-independent B. Consistent-dependent C. Inconsistent-independent D. Inconsistent-dependent

3. What is the first step in graphing systems of linear equations using the intercepts?

   A. Connect the x-intercepts and y-intercepts.

   B. Plot the intercepts of both equations on the same Cartesian plane.

   C. Find the slope.

   D. Identify the x-intercept and y-intercept of each equation in the system.

4. If all the ratios $\frac{a_1}{a_2}$, $\frac{b_1}{b_2}$, and $\frac{c_1}{c_2}$ are equal, then the system of linear equations is:

   A. Consistent-independent B. Consistent-dependent C. Inconsistent-independent D. Inconsistent-dependent

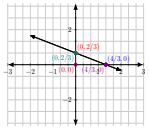
5. Which of the following must be true if a system of linear equations is inconsistent?

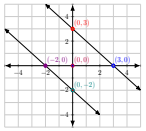
   A. $\frac{a_1}{a_2} \neq \frac{b_1}{b_2}$ B. $\frac{a_1}{a_2} = \frac{b_1}{b_2} \neq \frac{c_1}{c_2}$ C. $\frac{a_1}{a_2} \neq \frac{b_1}{b_2} = \frac{c_1}{c_2}$ D. $\frac{a_1}{a_2} = \frac{b_1}{b_2} = \frac{c_1}{c_2}$

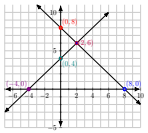
6. What is the solution to the system of linear equations $\begin{cases} y = \frac{2}{3}x + 6 \\ y = -\frac{3}{2}x + 6 \end{cases}$?

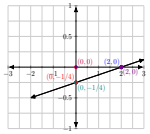
   A. $= \{(0,4)\}$ B. $= \{(0,5)\}$ C. $= \{(0,6)\}$ D. $= \{(0,7)\}$

7. Which of the following shows the graph of $\begin{cases} x - 8y = 2 \\ 3x - 24y = 6 \end{cases}$?

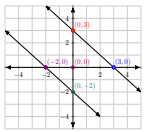
   A. 

   C. 

   B. 

   D. 

8. Which system of linear equations is represented by the graph shown at the right?

   A. $\begin{cases} x + y = 3 \\ x + y = -2 \end{cases}$ B. $\begin{cases} 8 = x + y \\ -4 = x - y \end{cases}$ C. $\begin{cases} 3x + 6y = 4 \\ 6x + 12y = 8 \end{cases}$ D. $\begin{cases} x + y = 12 \\ x - y = 8 \end{cases}$

9. What kind of system of linear equations is $\begin{cases} 8x + 2y = 2 \\ y = -4x + 1 \end{cases}$?

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10. Which of the following systems of linear equations is inconsistent?

    A. $\begin{cases} x + 3y = 8 \\ x - 3y = 8 \end{cases}$ B. $\begin{cases} x - 2y = 9 \\ x + 3y = 14 \end{cases}$ C. $\begin{cases} 2y = 6x - 5 \\ 3y = 9x + 1 \end{cases}$ D. $\begin{cases} 3x + 5y = 15 \\ 4x - 7y = 10 \end{cases}$

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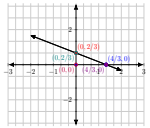
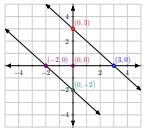
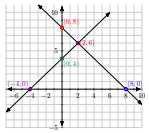
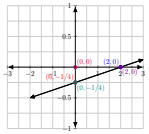
   A. 

   C. 

   B. 

   D. 

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   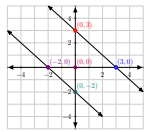

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