

Readiness Assurance Test

Choose the most appropriate response for each question.

- 1) Which of these graphs represents the following system of linear equations?

$$\begin{aligned}x + 2y &= 4 \\ 2x - 3y &= 1\end{aligned}$$



- 2) How many solutions are there for the system of linear equations represented by the following graph?



- (a) One (b) Two (c) Zero (d) Infinitely-many
- 3) Which of these graphs represents the following system of linear equations?

$$\begin{aligned}3x + 3y &= 6 \\ x + y &= 2\end{aligned}$$



- 4) How many solutions are there for the system of linear equations represented by the following graph?
(This graph represents two completely overlapping lines.)



- (a) Zero (b) One (c) Two (d) Infinitely-many

5) How many solutions are there for the system of linear equations represented by the following graph?



- (a) Zero (b) One (c) Two (d) Infinitely-many

6) How many solutions are there for the system of linear equations represented by the following graph?
(This graph represents two non-overlapping parallel lines.)



- (a) Zero (b) One (c) Two (d) Infinitely-many

7) Solve the following system of linear equations.

$$\begin{aligned}y &= 2x + 5 \\ y &= -x + 2\end{aligned}$$

- (a) $(x, y) = (-1, 3)$ (b) $(x, y) = (4, -2)$ (c) There are no solutions. (d) There are infinitely-many solutions.

8) Solve the following system of linear equations.

$$\begin{aligned}y &= 3x + 5 \\ y &= 3x + 2\end{aligned}$$

- (a) $(x, y) = (3, 4)$ (b) $(x, y) = (-5, 1)$ (c) There are no solutions. (d) There are infinitely-many solutions.

9) Solve the following system of linear equations.

$$\begin{aligned}x + 2y &= 4 \\ 2x - 3y &= 1\end{aligned}$$

- (a) There are no solutions. (b) There are infinitely many solutions. (c) $(x, y) = (-1, 4)$ (d) $(x, y) = (2, 1)$

10) Solve the following system of linear equations.

$$\begin{aligned}4x - 8y &= 12 \\ -6x + 12y &= -18\end{aligned}$$

- (a) There are no solutions. (b) There are infinitely many solutions. (c) $(x, y) = (3, 3)$ (d) $(x, y) = (-2, 1)$