

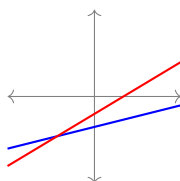
## Readiness Assurance Test

Choose the most appropriate response for each question.

- 1) Which of the following describe the set of all points on the line  $2x + 3y = 0$ ?

(a)  $\{(x, y) \mid 2x + 3y = 0\}$  (b)  $\{(x, y)\}$  (c)  $\{(2x, 3y)\}$  (d)  $\{(2x, 3y) \mid 2x + 3y = 0\}$

- 2) 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

- 3) Which of the following points is an element of the set  $\{(x, y) \mid 3x + 4y = 12\}$  ?

(a)  $(1, 1)$  (b)  $(3, 4)$  (c)  $(4, -3)$  (d)  $(8, -3)$

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



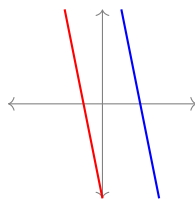
(a) One (b) Two (c) Infinitely-many (d) Zero

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

7) Solve the following system of linear equations.

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

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

8) Solve the following system of linear equations.

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

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

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