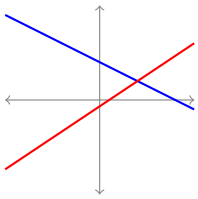
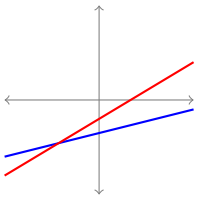
Readiness Assurance Test

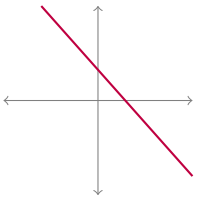
Choose the most appropriate response for each question.

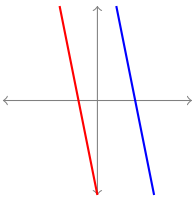
1) Which of these graphs represents the following system of linear equations?

$$x + 2y = 4$$
$$2x - 3y = 1$$

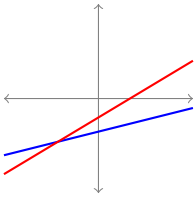
(a) 

(b) 

(c) 

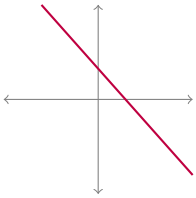
(d) 

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



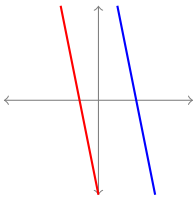
(a) Zero (b) One (c) Two (d) Infinitely-many

3) 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

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



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

5) Solve the following system of linear equations.

$$y = 2x + 5$$
$$y = -x + 2$$

(a) $x = -1$ and $y = 3$ (b) $\begin{bmatrix} x_1 \\ x_2 \end{bmatrix} = \begin{bmatrix} 4 \\ -2 \end{bmatrix}$ (c) There are no solutions. (d) There are infinitely-many solutions.

6) Solve the following system of linear equations.

$$x + 2y = 4$$
$$2x - 3y = 1$$

(a) $\begin{bmatrix} x_1 \\ x_2 \end{bmatrix} = \begin{bmatrix} -1 \\ 4 \end{bmatrix}$ (b) $\begin{bmatrix} x_1 \\ x_2 \end{bmatrix} = \begin{bmatrix} 2 \\ 1 \end{bmatrix}$ (c) There are no solutions. (d) There are infinitely-many solutions.