

Algebra 11-6 Systems and Parallel Lines

1. Which of the two lines must be parallel?
- a.) $y = 2x - 5$ b.) $y = x - 5$
c.) $y = -2x - 5$ d.) $y = x + 5$

2. Fill in the chart below.

| If graph has | Number of solutions to system |
|--------------------------------------|-------------------------------|
| 2 parallel and nonintersecting lines | |
| One line | |
| 2 intersecting lines | |

3. True or False If two lines have the same slope, there are no solutions to the system.

In 4-7, tell if the system has no solutions, one solution, or infinitely many solutions.

4.
$$\begin{cases} y = 2x - 3 \\ y = 2x + 1 \end{cases}$$

5.
$$\begin{cases} y = 3x - 1 \\ 2y - 6x = -2 \end{cases}$$

6.
$$\begin{cases} y = 3(2x - 1) \\ y = 5x - 2 \end{cases}$$

7.
$$\begin{cases} 2x + 3y = 7 \\ 9y + 6x = 21 \end{cases}$$