

Exploring Systems of Equations through Graphing

For each linear system, state the number of solutions without using a calculator. Be sure you are able to explain how you formed your conclusions.

1. $y = 4x - 3$ _____
 $y = 4x + 6$

2. $y = -2x + 1$ _____
 $y = -3x + 1$

3. $y = 8x + 6$ _____
 $y = \frac{16}{2}x + 6$

4. $y = -x + 3$ _____
 $y = -x + 5$

5. $y = 2x - 8$ _____
 $y = -2x - 4$

SUMMARY:

The system has **no solution**.

Graph: _____

Equations: _____

The system has **one solution**.

Graph: _____

Equations: _____

The system has **many solutions**.

Graph: _____

Equations: _____