Name: _____

Solving Linear Systems: No Solution and Infinitely Many Solutions

	Example Graph	Example Equation	Equation Characteristics
One Solution			
No Solutions			
Infinitely Many Solutions			

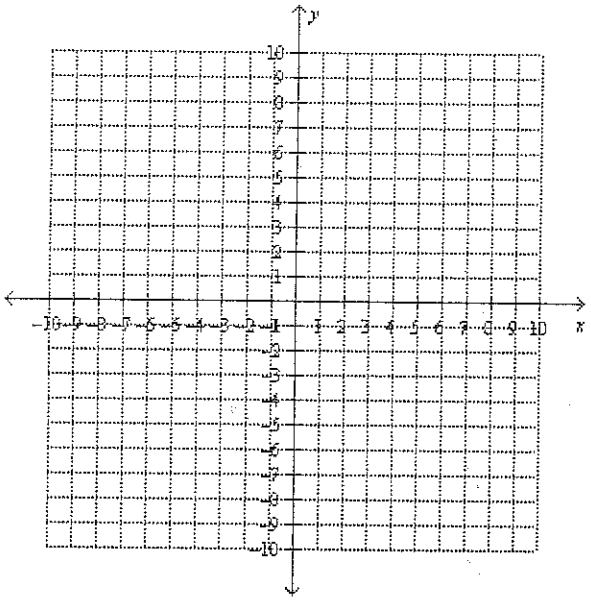
If two lines are parallel, they will have _____ solutions.

If two lines are the same, they will have _____solutions.

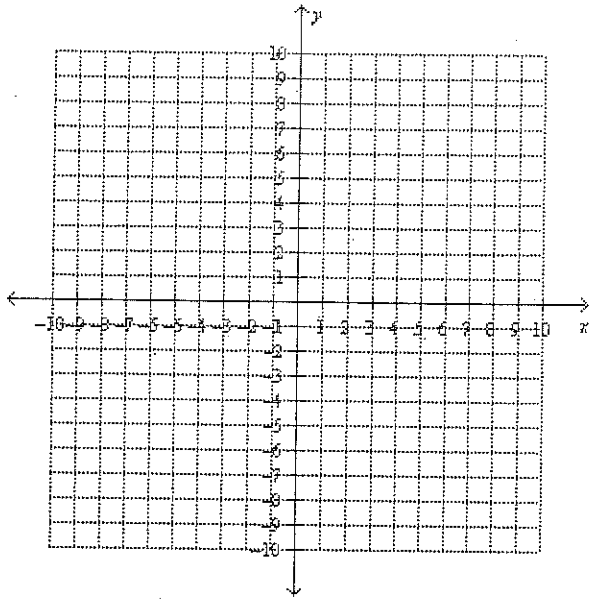
If two lines have different slopes, they will have _____ solutions.

Solve each of the following systems and say whether there is one solution, no solution, or infinitely many solutions. Show your work!

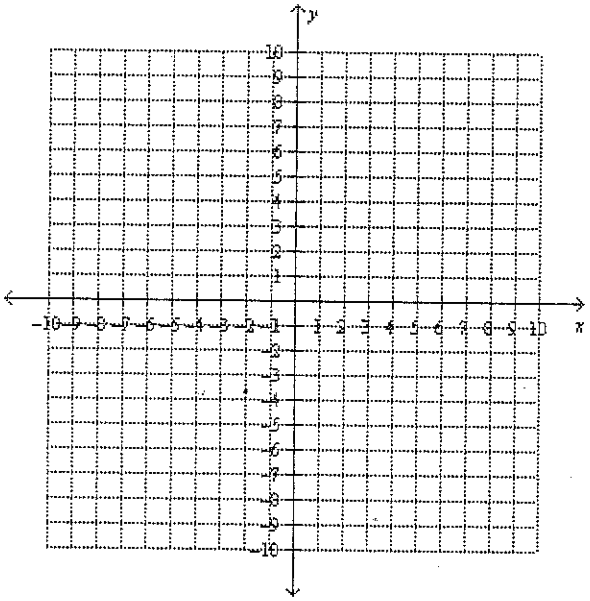
1. $y = -2x + 1$
   $y = -2x - 1$



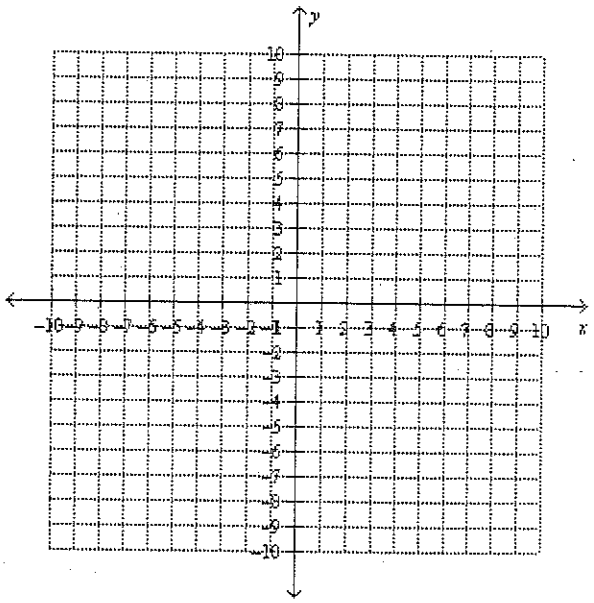
2. $x + 2y = 10$
   $2x + 2y = 8$



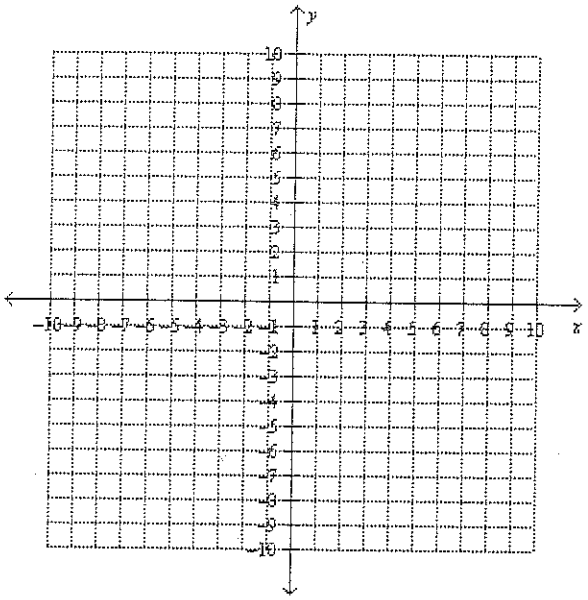
5. $2x + 4y = 8$
   $y = -0.5x + 2$



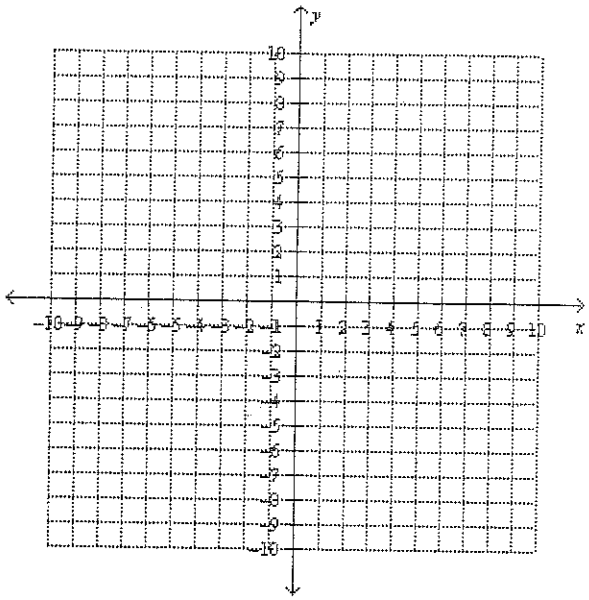
6. $y = 3x + 4$
   $-12x + 4y = 16$



7. $y = 2x + 6$
$4x - 2y = 8$



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



3. How can you tell if a system has no solution WITHOUT GRAPHING?

4. Make up your own linear systems problem where the answer would be "no solution".