

Algebra 1                  6.1

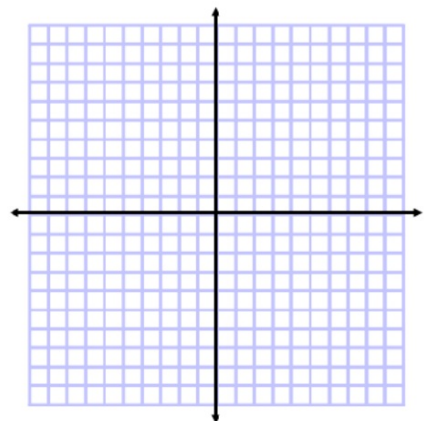
Determine the number of solutions to a system of linear equations

Solve systems of linear equations by graphing

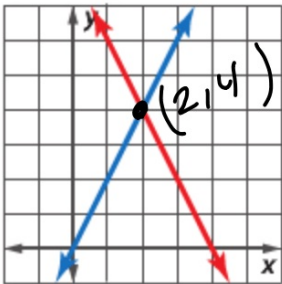
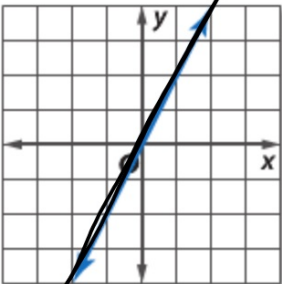
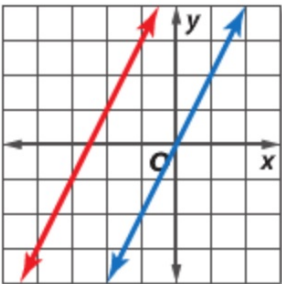
linear equation  
system of equations  
consistent  
inconsistent  
independent  
dependent

$$y = mx + b \quad *$$
$$y = \text{constant}$$
$$x = \text{constant}$$

graph matching: equation, table, graph



**ConceptSummary** Possible Solutions

Number of Solutions	exactly one	infinite	no solution
Terminology	consistent and independent	consistent and dependent	inconsistent
Graph			

$$y = x - 2$$

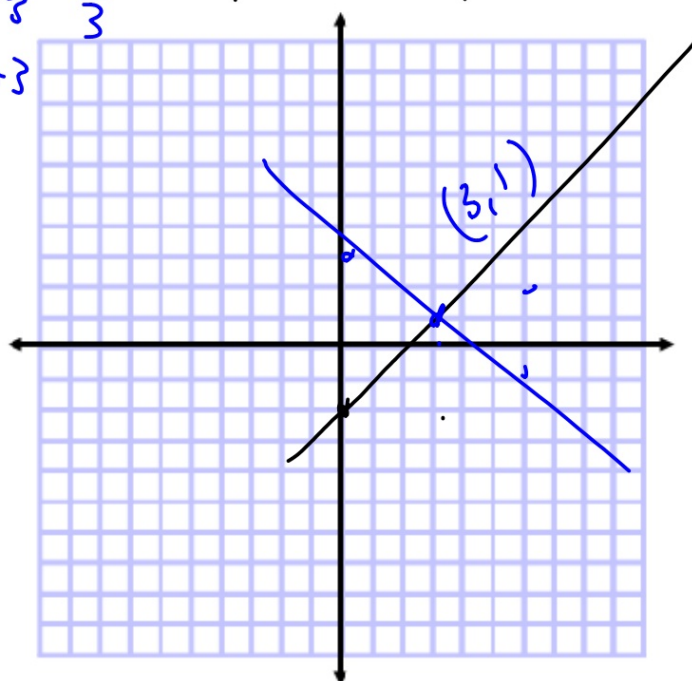
### Guided Practice

Graph each system and determine the number of solutions that it has. If it has one solution, name it.

2A.  $x - y = 2$   $\rightarrow$   $\begin{array}{r} x - y = 2 \\ -x \quad -x \\ \hline -y = -x + 2 \end{array}$

2B.  $y = -2x - 3$   
 $6x + 3y = -9$

$\begin{array}{r} -2x - 2x \\ 3y = -2x + 9 \\ \hline 3y = -2x + 9 \\ \frac{3y}{3} = \frac{-2x + 9}{3} \\ y = -\frac{2}{3}x + 3 \end{array}$



- graph
- number of solutions
- describe
- what is the solution?

Matching activity

1. Match each graph with its equation

Check answers

2. Match table of values with equation/graph