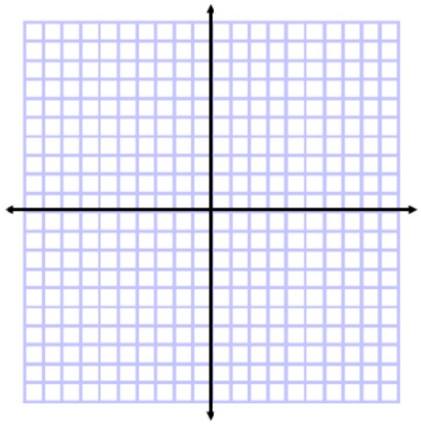
Algebra 1 6.1

Determine the number of solutions to a system of linear equations

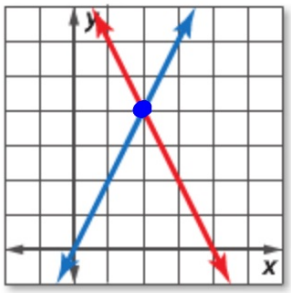
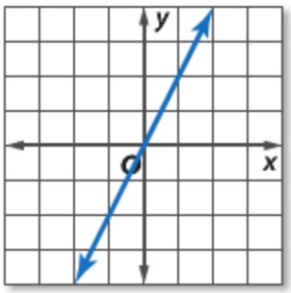
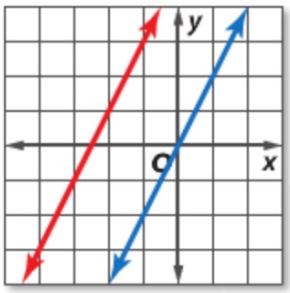
Solve systems of linear equations by graphing

linear equation
system of equations
consistent
inconsistent
independent
dependent

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			

GuidedPractice

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

2A. $x - y = 2$
$3y + 2x = 9$

$-2x \quad -2x$

$\frac{3y}{3} = \frac{-2x}{3} + \frac{9}{3}$

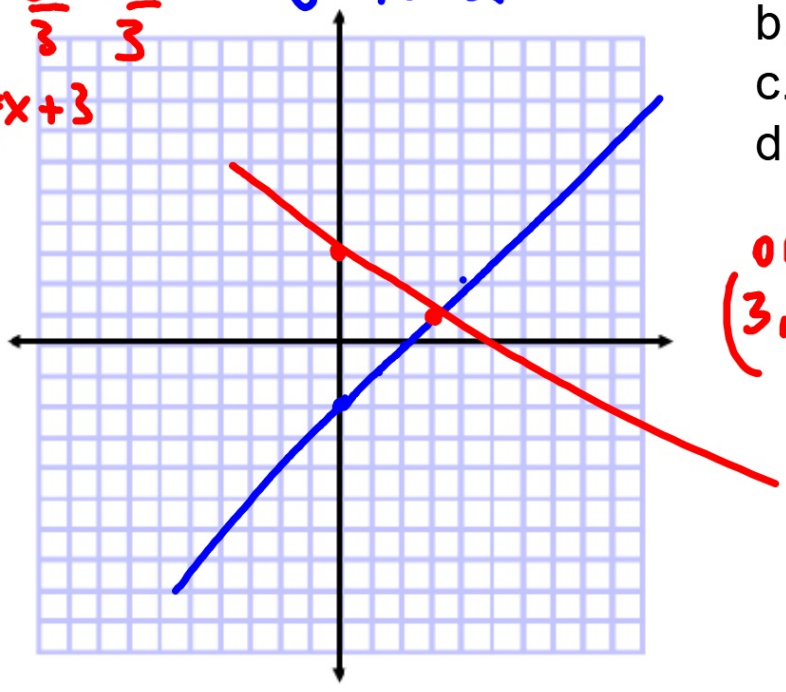
$y = -\frac{2}{3}x + 3$

$-x \quad -x$

$\frac{-y}{-1} = \frac{-x}{-1} + \frac{2}{-1}$

$y = x - 2$

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



a. graph
b. number of solutions
c. describe
d. what is the solution?

one
(3, 1)

$y = \frac{2}{1}x + 5$

Matching activity

1. Match each graph with its equation

Check answers

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2. Match table of values with equation/graph