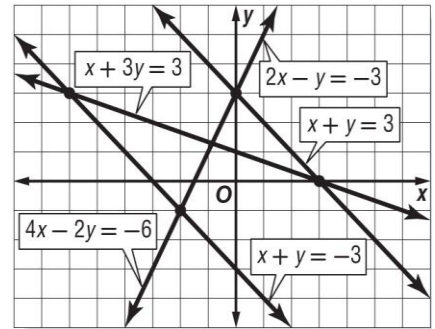


6-1 Practice

Graphing Systems of Equations

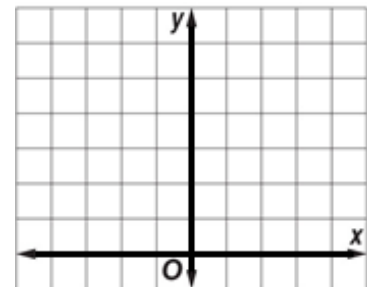
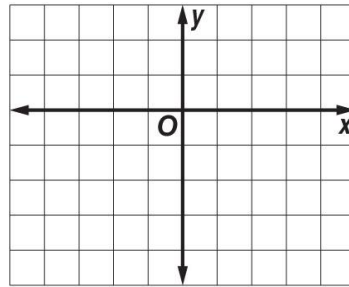
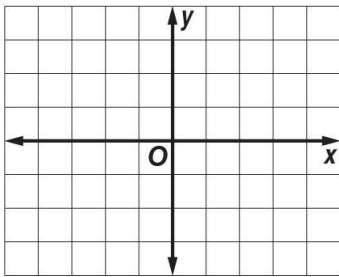
Use the graph at the right to determine whether each system is *consistent* or *inconsistent* and if it is *independent* or *dependent*.



- | | |
|---------------------------------|------------------------------------|
| 1. $x + y = 3$
$x + y = -3$ | 2. $2x - y = -3$
$4x - 2y = -6$ |
| 3. $x + 3y = 3$
$x + y = -3$ | 4. $x + 3y = 3$
$2x - y = -3$ |

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

- | | | |
|----------------------------------|----------------------------------|----------------------------------|
| 5. $3x - y = -2$
$3x - y = 0$ | 6. $y = 2x - 3$
$4x = 2y + 6$ | 7. $x + 2y = 3$
$3x - y = -5$ |
|----------------------------------|----------------------------------|----------------------------------|



8. **BUSINESS** Nick plans to start a home-based business producing and selling gourmet dog treats. He figures it will cost \$20 in operating costs per week plus \$0.50 to produce each treat. He plans to sell each treat for \$1.50.
- Graph the system of equations $y = 0.5x + 20$ and $y = 1.5x$ where x is the number of treats sold per week.
 - How many treats does Nick need to sell per week to break even?



9. **SALES** A used book store also started selling used CDs and videos. In the first week, the store sold 40 used CDs and videos, at \$4.00 per CD and \$6.00 per video. The sales for both CDs and videos totaled \$180.00
- Write a system of equations to represent the situation.
 - Graph the system of equations.
 - How many CDs and videos did the store sell in the first week?

