Concepts of Algebra 2 Notes **Section 3-1: Solving Systems Using Tables and Graphs**

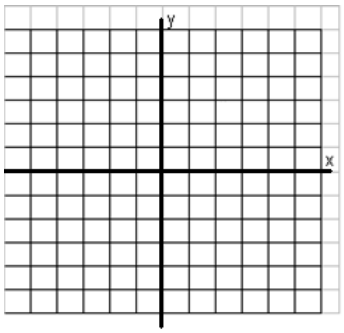
***Objective:**

*system of equation:

*linear system:

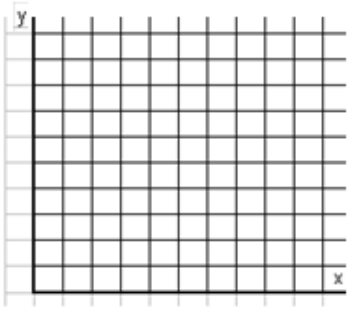
*solution of a system:

Got It? **1.** What is the solution of the system? $\begin{cases} x - 2y = 4 \\ 3x + y = 5 \end{cases}$



Write and solve a system of equations for each situation. Check your answers.

14. A shop has one-pound bags of peanuts for \$2 and three-pound bags of peanuts for \$5.50. If you buy 5 bags and spend \$17, how many of each size bag did you buy?

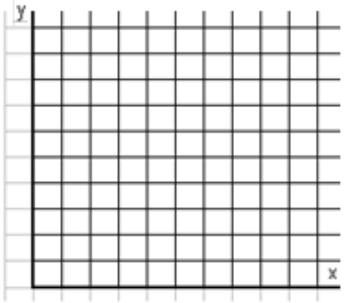


Got It? **3.** The table shows the populations of the San Diego and Detroit metropolitan regions. When were the populations of these regions equal? What was that population?

Populations of San Diego and Detroit Metropolitan Regions (1950–2000)

	1950	1960	1970	1980	1990	2000
San Diego	334,387	573,224	696,769	875,538	1,110,549	1,223,400
Detroit	1,849,568	1,670,144	1,511,482	1,203,339	1,027,974	951,270

Source: U.S. Census Bureau



*consistent system:	*independent system: *dependent system:
*inconsistent system:	BLANK

Graphical Solutions of Linear Systems		
*Intersecting Lines	*Coinciding Lines	*Parallel Lines

Got It? **4.** Without graphing, is each system *independent*, *dependent*, or *inconsistent*?

a. $\begin{cases} -3x + y = 4 \\ x - \frac{1}{3}y = 1 \end{cases}$ **b.** $\begin{cases} 2x + 3y = 1 \\ 4x + y = -3 \end{cases}$ **c.** $\begin{cases} y = 2x - 3 \\ 6x - 3y = 9 \end{cases}$

Inclass: p. 138-139 #14, 16, 28
Homework: p. 138-139 #7-27(odd)
Interactmath: #7, 9, 10, 12, 13, 23, 28