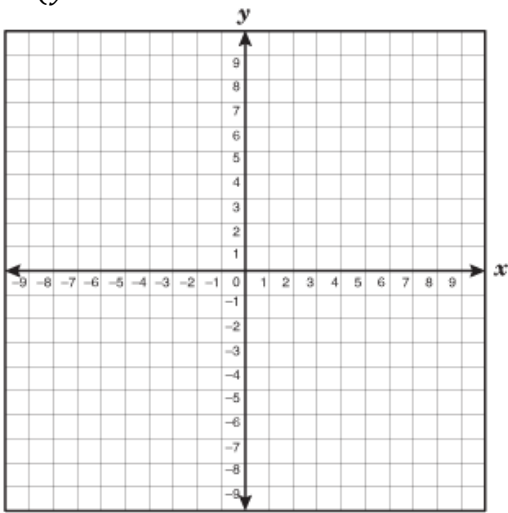


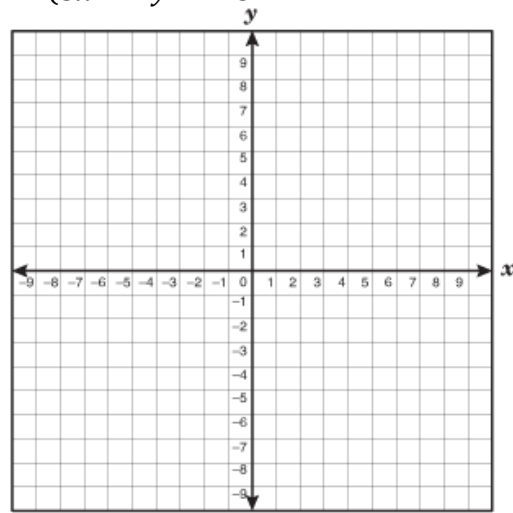
Solving 2x2 Linear Systems by Graphing & Substitution Name: _____

Graph the following systems on the coordinate plane to identify the solution to the system.

$$1) \begin{cases} 2x - 3y = -1 \\ y = x - 1 \end{cases}$$



$$2) \begin{cases} 3x + y = 5 \\ 5x - 4y = -3 \end{cases}$$



Use the graphing capabilities of your calculator to find the solution to the system of equations.

$$3) \begin{cases} y = 3.76x - 3.4 \\ y = -2.4x + 6 \end{cases}$$

$$4) \begin{cases} 2y = 15x - 4 \\ y = -4.11x - 1 \end{cases}$$

Solve the following systems of equations using substitution.

$$5) \begin{cases} -7x - 2y = -13 \\ x - 2y = 11 \end{cases}$$

$$6) \begin{cases} x = 2y - 6 \\ 4y = 2x + 12 \end{cases}$$

$$7) \begin{cases} -5x + y = -3 \\ 3x - 8y = 24 \end{cases}$$

8) On Monday Joe bought 10 cups of coffee and 5 doughnuts for his office at the cost of \$16.50. It turns out that the doughnuts were more popular than the coffee. On Tuesday he bought 5 cups of coffee and 10 doughnuts for a total of \$14.25. How much was each cup of coffee?