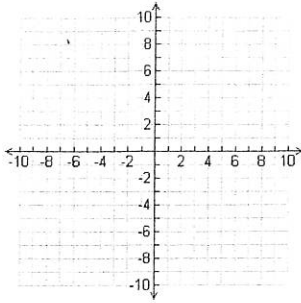Name_____

Special Systems Revisited ☺
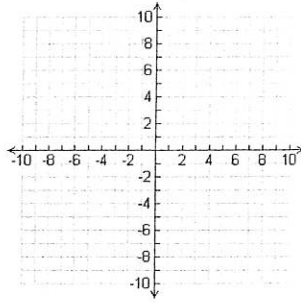
Solve the systems of equations below by graphing. State whether the system has one solution, no solution, or infinitely many solutions. If it I has one solution, name it.

A. $\begin{cases} y = -3x - 2 \\ y = -3x - 4 \end{cases}$

B. $\begin{cases} y = 2x + 5 \\ y = 5 + 2x \end{cases}$

C. $\begin{cases} y = -4x + 3 \\ y = 2x + 7 \end{cases}$

# of solutions: _____   # of solutions: _____   # of solutions: _____

Compare the slopes and y-intercepts. Then give the number of solutions.

A₂. $\begin{cases} y = -3x - 2 \\ y = -3x - 4 \end{cases}$

B₂. $\begin{cases} y = 2x + 5 \\ y = 5 + 2x \end{cases}$

C₂. $\begin{cases} y = -4x + 3 \\ y = 2x + 7 \end{cases}$

# of solutions: _____   # of solutions: _____   # of solutions: _____

Solve the systems of equations using the equations. State whether the system has one solution, no solution, or infinitely many solutions. If it has one solution, name it.

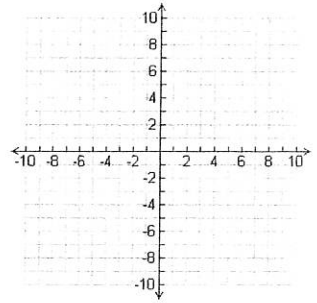**A₃.** $\begin{cases} y = -3x - 2 \\ y = -3x - 4 \end{cases}$

B₃. $\begin{cases} y = 2x + 5 \\ y = 5 + 2x \end{cases}$

C₃. $\begin{cases} y = -4x + 3 \\ y = 2x + 7 \end{cases}$

# of solutions: _____   # of solutions: _____   # of solutions: _____

Systems of Equations Summary

Number of Solutions	Similarities and Differences in $y = mx + b$	Description of Graphed Lines	Result of Solving with Algebra
1			
infinitely many			
0			