Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_

Homework sheet: Alg2H

Systems of equations: Graphs\_xyz\_Cramer

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| * 1. Solve the system of equations:

$$\left\{\begin{array}{c}2x+3y=9\\3x-y=19\end{array}\right.$$* 1. Graph the system of equations using desmos. Do the results agree? Draw the graph (just qualitatively).
 |
| * 1. Solve the system of equations:

$$\left\{\begin{array}{c}2x-3y=8\\4x-6y=12\end{array}\right.$$* 1. Graph the system of equations using desmos. Do the results agree? Draw the graph (just qualitatively).
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| * 1. Solve the system of equations:

$$\left\{\begin{array}{c}2x+y=8\\4x+2y=16\end{array}\right.$$* 1. Graph the system of equations using desmos. Do the results agree? Draw the graph (just qualitatively).
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| * 1. Write two equations with solution $(x,y)=(2,3)$.
	2. Plot the system you derived, and verify your answer.
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| * 1. Write two equations with solutions $(x,y)=(2,3)$ AND $(x,y)=(3,6)$. That means, both pairs should be a valid solution to your equations.
	2. Plot the system you derived, and verify your answer.
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| * 1. Write two inconsistent equations, namely with no solution.
	2. Plot the system you derived, and verify your answer.
 |
| 1. Solve the system of equations:

$$\left\{\begin{array}{c}24x+5y=27\\6x+3y=5\end{array}\right.$$ |
| 1. Solve the following system:

$$\left\{\begin{array}{c}2x+3y+4z=13\\x-3y+2z=11\\x-2y-z=1\end{array}\right.$$Can you solve it on Desmos? Try with slider for z. |
| 1. Solve the following system, and then check your answer by graphing:

$$\left\{\begin{array}{c}2x+3y=3\\x-3y=6\\3x-y=10\end{array}\right.$$ |
| 1. Cramer’s rule.
 |
| 1. Solve the system using Cramer’s rule

$$\left\{\begin{array}{c}24x+5y=27\\6x+3y=5\end{array}\right.$$ |