



Lots of Linear Options

1. *Getting Started:* **Without** graphing, construct a system of two distinct linear equations where $(4, -1)$ is a solution to your system. After you have created your system of equations, graph your system. Explain how your graph shows that your system satisfies the required conditions. Compare your solution to a neighbor's solution.
2. *Dig In:* **Without** graphing, construct a system of two linear equations where $(-4, 3)$ is a solution to the first equation but not to the second equation, and where $(6, -2)$ is a solution to your system. After you have created your system of equations, graph your system. Explain how your graph shows that your system satisfies the required conditions.
3. *Challenge:* **Without** graphing, construct a system of three linear equations where $(0, 2)$ is a solution to the first and second equation but not to the third equation, and where $(4, -2)$ is a solution to the second and the third equations, but not the first. After you have created your system of equations, graph your system. Explain how your graph shows that your system satisfies the required conditions and whether or not your system has a solution.

