

## Section 12.6 Systems of Nonlinear Equations

**Objectives:** Solve systems of nonlinear equations by substitution or elimination.

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If at least one equation in a system is not the graph of a straight line, it is a **nonlinear system**.

When solving systems of nonlinear equations, the solution(s) represent the point(s) of intersection (if any) of the graphs of the equations.

**Hints for solving nonlinear systems:**

- Do a quick sketch of the equations in the system to give you an idea of how many solutions a system has.
- You can use either substitution or elimination method—practice and experience will help you decide which method is best.
- Be sure to check for extraneous solutions.

**Work #1 – 6**