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What you'll learn to do: Define and identify solutions for systems of equations.

The way a river flows depends on many variables including how big the river is, how much water it contains, what sorts of things are floating in the river, whether or not it is raining, and so forth. If you want to best describe its flow, you must take into account these other variables. A system of linear equations can help with that.

A **system of linear equations** consists of two or more linear equations made up of two or more variables such that all equations in the system are considered simultaneously. You will find systems of equations in every application of mathematics. They are a useful tool for discovering and describing how behaviors or processes are interrelated. It is rare to find, for example, a pattern of traffic flow that is only affected by weather. Accidents, time of day, and major sporting events are just a few of the other variables that can affect the flow of traffic in a city. In this section, we will explore some basic principles for graphing and describing the intersection of two lines that make up a system of equations (which will make you one step closer to claiming your million dollar prize from the Clay Mathematics Institute!).

Specifically, in this section you'll learn how to:

- Evaluate ordered pairs as solutions to systems
- Classify solutions for systems
- Graph systems of equations

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