**Qualitative graphs** are graphs that are used to represent situations that do not necessarily have numerical values. Qualitative graphs represent the essential elements of a situation in a graphical form. For example, Graph A could represent a car that is accelerating at a constant rate.

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**Describe a Qualitative Graph**

Describe a situation that could be represented by Graph B.

**Step 1** Look at the labels of the horizontal and vertical axes. Think of a situation that could be represented using the given labels.
- The labels of the axes are *Time* and *Speed*.
- A possible situation is a person riding a bicycle.

**Step 2** Look at each section of the graph and decide whether it is increasing, decreasing, or constant.
- The first part of the graph is constant.
- The second part of the graph is increasing.

**Step 3** Describe an event or action that could be represented by each section of the graph.
- The first part of the graph could be represented by a bicyclist riding along a flat road.
- The second part of the graph increased so the bicyclist’s speed is increasing. She could be going downhill.

So, the graph could represent a bicyclist riding along a flat road and then traveling downhill.

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**Exercises**

1. Describe a situation that could be represented by Graph C.
2. Refer to Graph B. Describe how the graph would look if after going downhill, the bicyclist then rode along a flat surface followed by going up a hill.
3. Draw a qualitative graph that could be used to represent the following situation: Ava takes a ski lift to the top of a mountain and then skis down the slope.
4. Draw a qualitative graph. Then trade papers with a partner and describe a situation for your partner’s graph.