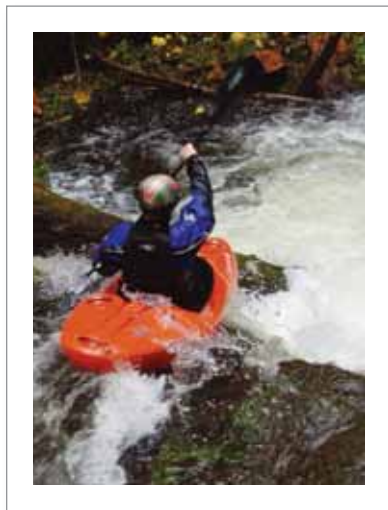


## Kayaking and Sailing

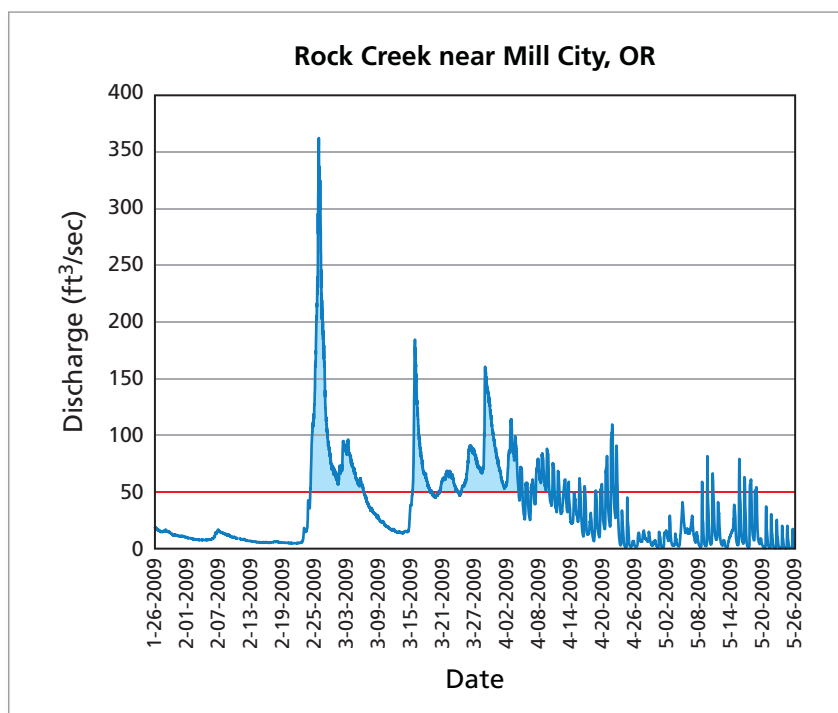
A *kayak* is a boat in which a paddler faces forward, legs in front, using a double-bladed paddle. A *canoe*, on the other hand, is a boat in which a paddler faces forward and sits or kneels in the boat, using a single-bladed paddle.

### EXAMPLE 3 Analyzing a Graph

The graph shows the discharge (amount of water) flowing through Rock Creek in Oregon. You want to kayak in Rock Creek only when the discharge is 50 cubic feet per second or greater. Estimate the percent of days from January 26 through May 26 that the creek meets your criteria.



From a blog by a kayaker: “The East Fork of Rock Creek (aka *The Rock Creek* or simply ‘The Rock’) is a full-on, bare-knuckled brawler and one of my personal favorites. This creek has an outlandish gradient created by a non-stop series of ledges, falls, and boulder gardens that thunder down through Rock Creek Canyon.”



### SOLUTION

There are only 2 time periods when the creek has a discharge that is comfortably above 50 cubic feet per second. The first is about 11 days from February 23 through March 5. The second is about 23 days between March 14 and April 8. So, the percent of the days from January 26 through May 26 (121 days) that the creek water is high enough is

$$\frac{\text{days above } 50 \text{ ft}^3/\text{sec}}{\text{total days}} = \frac{34}{121} \approx 0.281.$$

The creek meets your criteria about 28% of the time.

### ✓ Checkpoint

Help at [Math.andYOU.com](http://Math.andYOU.com)

You want to kayak in Rock Creek only when the discharge is 150 cubic feet per second or greater. Estimate the percent of days from January 26 through May 26 that the creek meets your criteria.