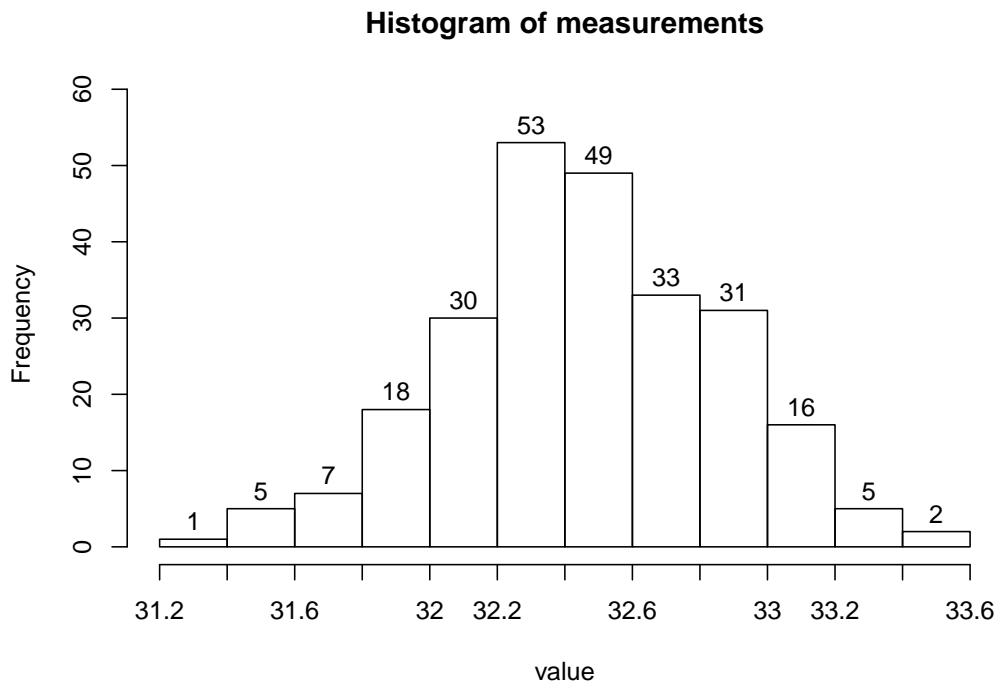


1. Problem

A continuous random variable was measured 250 times. The histogram is shown below.



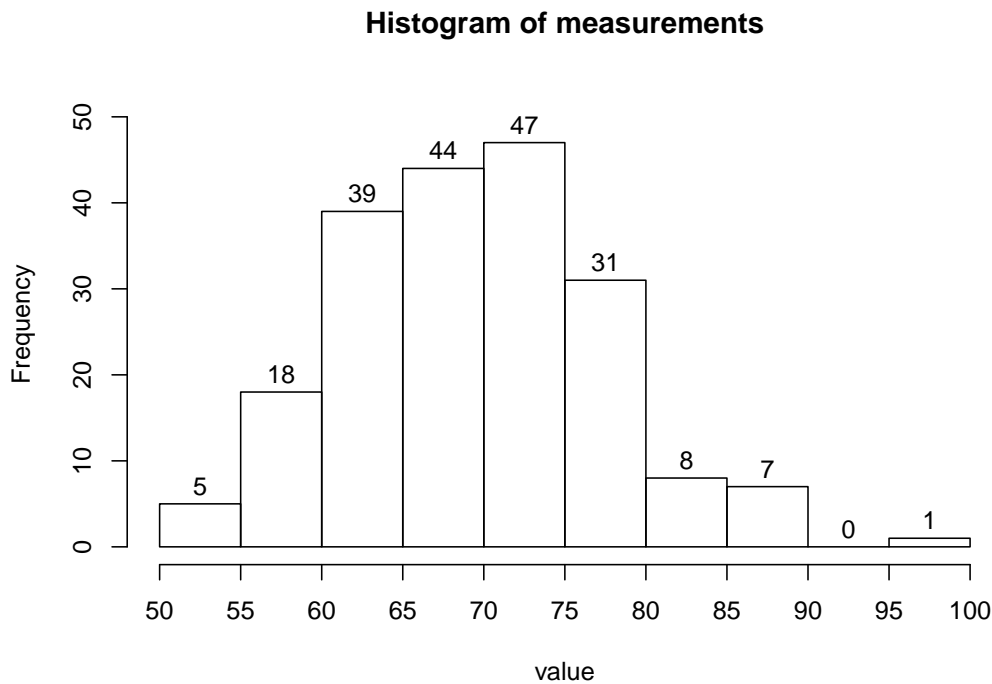
- Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
- Estimate the range of the distribution (range = max-min).
- What percent of the measurements are greater than 32?
- What percent of the measurements are greater than 32.8?
- Of the measurements greater than 32, what percent are greater than 32.8?
- Estimate the value of the 45.6th percentile.

Solution

- symmetric mound
- 2.4
- 87.6%
- 21.6%
- 24.66%
- 32.4

2. Problem

A continuous random variable was measured 200 times. The histogram is shown below.



- (a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
- (b) Estimate the range of the distribution (range = max-min).
- (c) What percent of the measurements are less than 75?
- (d) What percent of the measurements are less than 70?
- (e) Of the measurements less than 75, what percent are less than 70?
- (f) Estimate the value of the 11.5th percentile.

Solution

- (a) symmetric mound
- (b) 50
- (c) 76.5%
- (d) 53%
- (e) 69.28%
- (f) 60