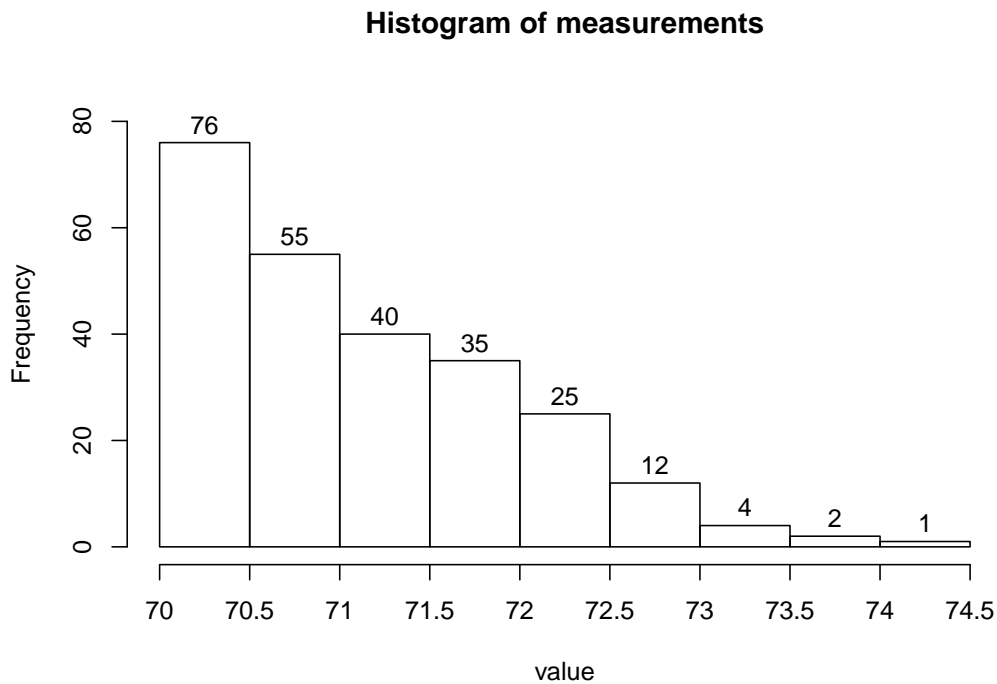


1. Problem

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



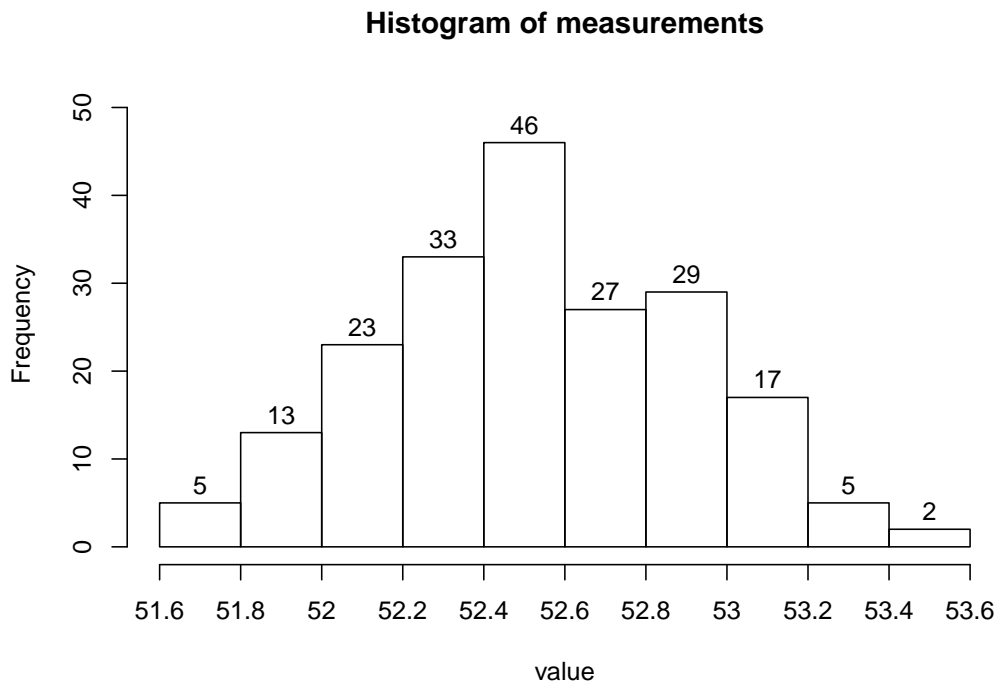
- (a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
- (b) Estimate the range of the distribution (range = max-min).
- (c) What percent of the measurements are greater than 71?
- (d) What percent of the measurements are less than 72?
- (e) Of the measurements greater than 71, what percent are less than 72?
- (f) Estimate the value of the 98.8th percentile.

Solution

- (a) skew right
- (b) 4.5
- (c) 47.6%
- (d) 82.4%
- (e) 63.03%
- (f) 73.5

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 greater than 52?
- (d) What percent of the measurements are less than 53?
- (e) Of the measurements greater than 52, what percent are less than 53?
- (f) Estimate the value of the 73.5th percentile.

Solution

- (a) symmetric mound
- (b) 2
- (c) 91%
- (d) 88%
- (e) 86.81%
- (f) 52.8