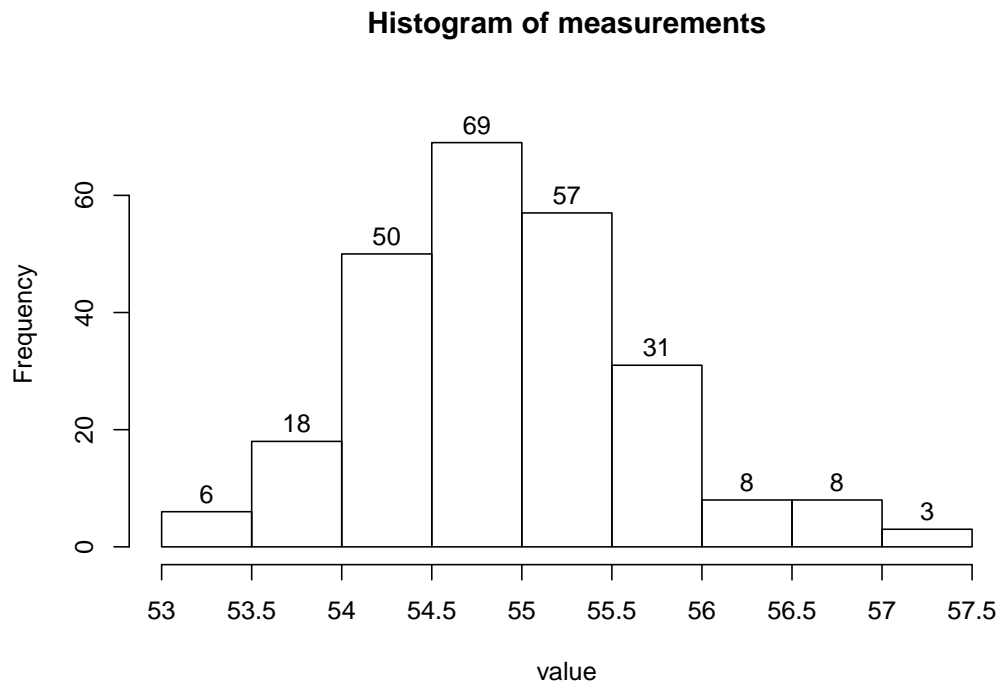


1. Problem

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



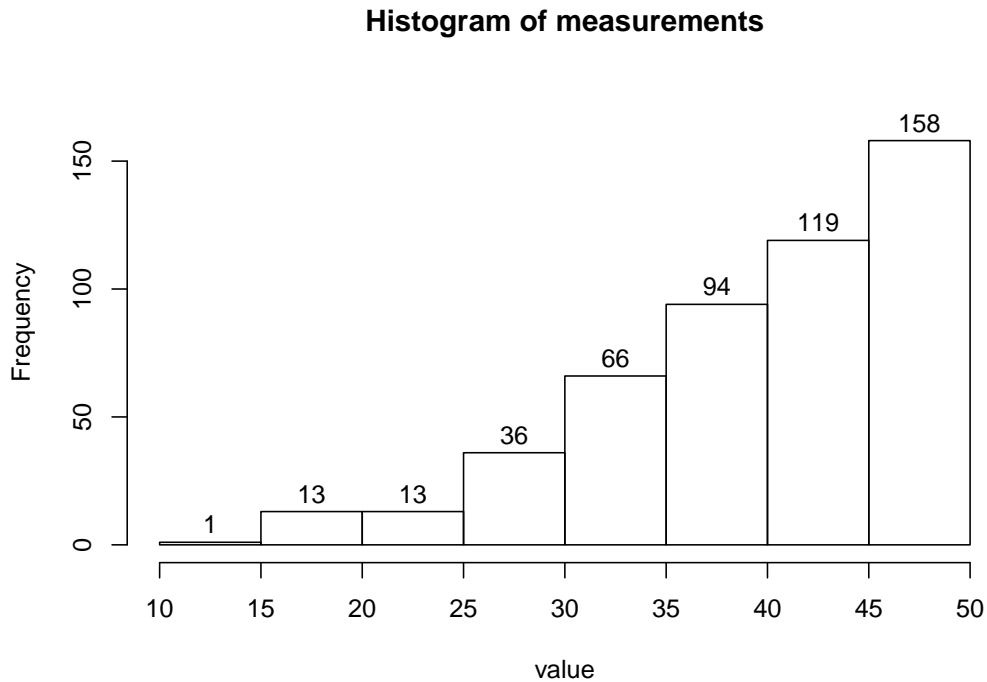
- (a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
- (b) Estimate the range of the distribution (range = max-min).
- (c) What percent of the measurements are greater than 54.5?
- (d) What percent of the measurements are less than 55.5?
- (e) Of the measurements greater than 54.5, what percent are less than 55.5?
- (f) Estimate the value of the 95.6th percentile.

Solution

- (a) symmetric mound
- (b) 4.5
- (c) 70.4%
- (d) 80%
- (e) 71.59%
- (f) 56.5

2. Problem

A continuous random variable was measured 500 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 30?
- (d) What percent of the measurements are greater than 40?
- (e) Of the measurements greater than 30, what percent are greater than 40?
- (f) Estimate the value of the 25.8th percentile.

Solution

- (a) skew left
- (b) 40
- (c) 87.4%
- (d) 55.4%
- (e) 63.39%
- (f) 35