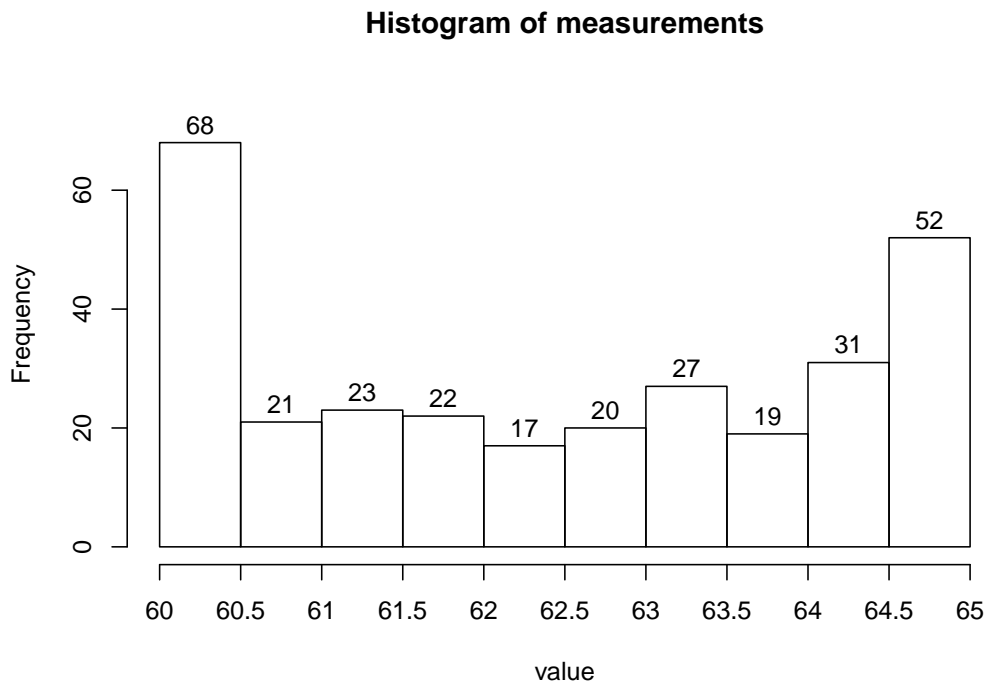


1. Problem

A continuous random variable was measured 300 times. The histogram is shown below.



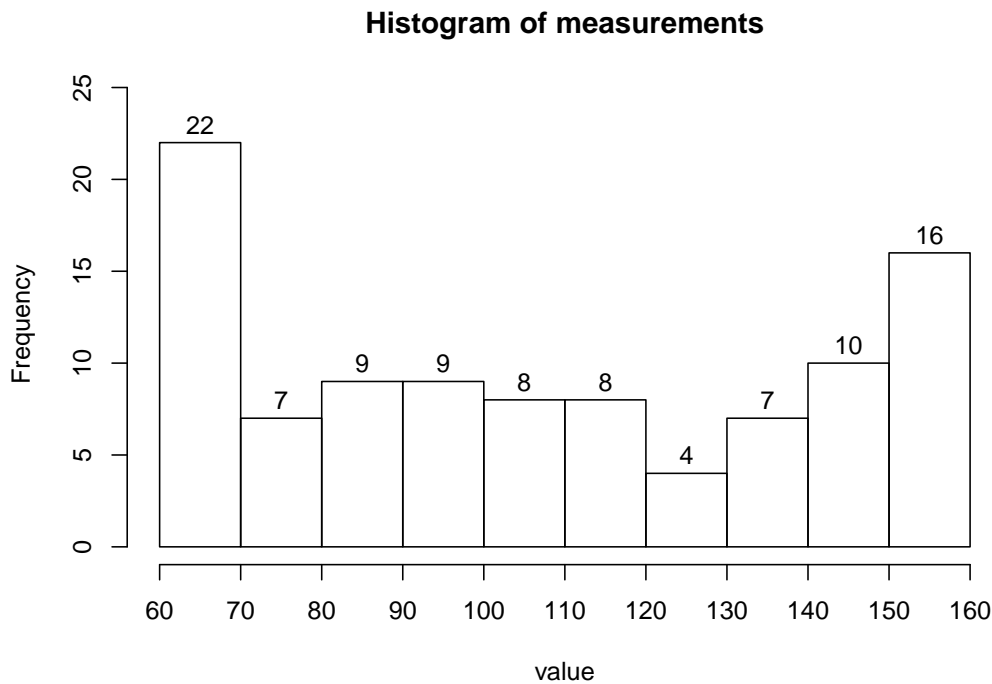
- (a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
- (b) Estimate the range of the distribution (range = max-min).
- (c) What percent of the measurements are less than 62?
- (d) What percent of the measurements are less than 61.5?
- (e) Of the measurements less than 62, what percent are less than 61.5?
- (f) Estimate the value of the 22.67th percentile.

Solution

- (a) bimodal
- (b) 5
- (c) 44.67%
- (d) 37.33%
- (e) 83.58%
- (f) 60.5

2. Problem

A continuous random variable was measured 100 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 130?
- (d) What percent of the measurements are less than 150?
- (e) Of the measurements greater than 130, what percent are less than 150?
- (f) Estimate the value of the 74th percentile.

Solution

- (a) bimodal
- (b) 100
- (c) 33%
- (d) 84%
- (e) 51.52%
- (f) 140