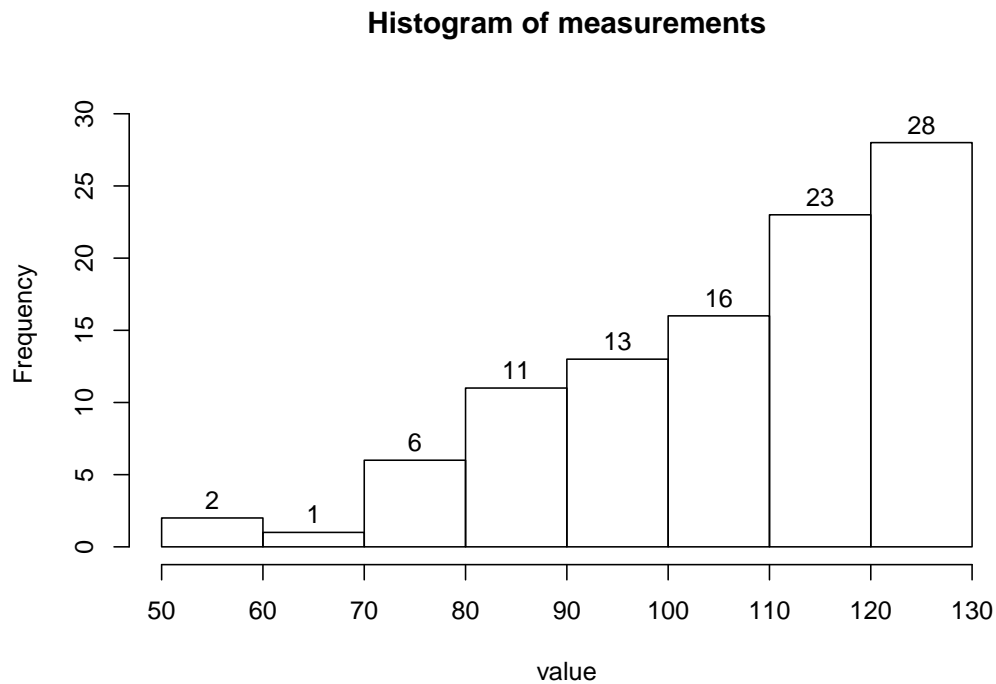


1. Problem

A continuous random variable was measured 100 times. The histogram is shown below.



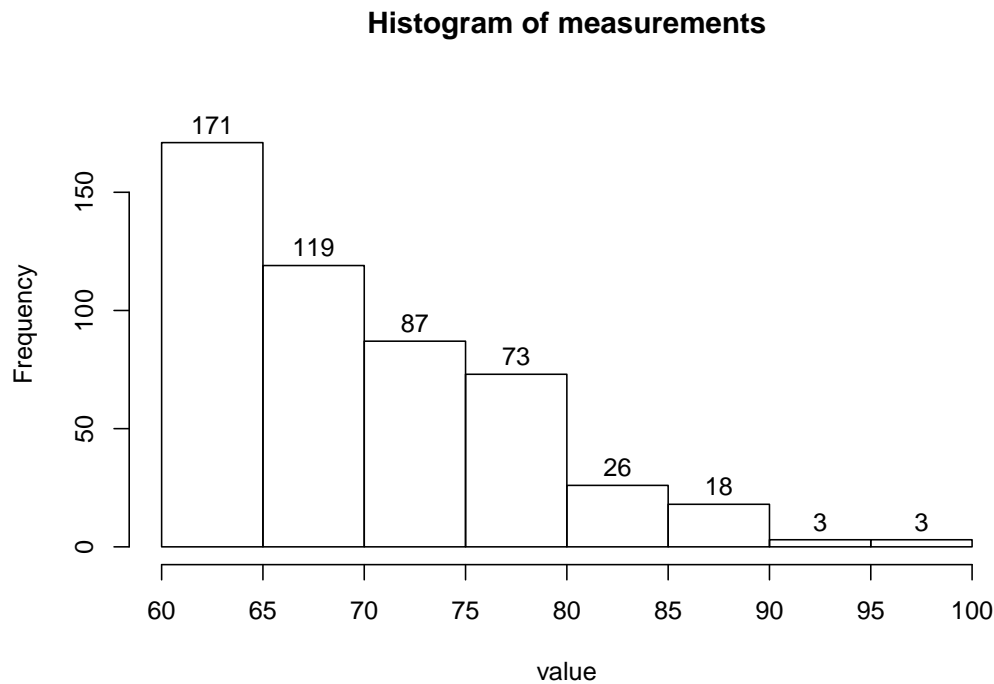
- (a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
- (b) Estimate the range of the distribution (range = max-min).
- (c) What percent of the measurements are greater than 70?
- (d) What percent of the measurements are less than 90?
- (e) Of the measurements greater than 70, what percent are less than 90?
- (f) Estimate the value of the 49th percentile.

Solution

- (a) skew left
- (b) 80
- (c) 97%
- (d) 20%
- (e) 17.53%
- (f) 110

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 less than 70?
- (d) What percent of the measurements are greater than 65?
- (e) Of the measurements less than 70, what percent are greater than 65?
- (f) Estimate the value of the 95.2th percentile.

Solution

- (a) skew right
- (b) 40
- (c) 58%
- (d) 65.8%
- (e) 41.03%
- (f) 85