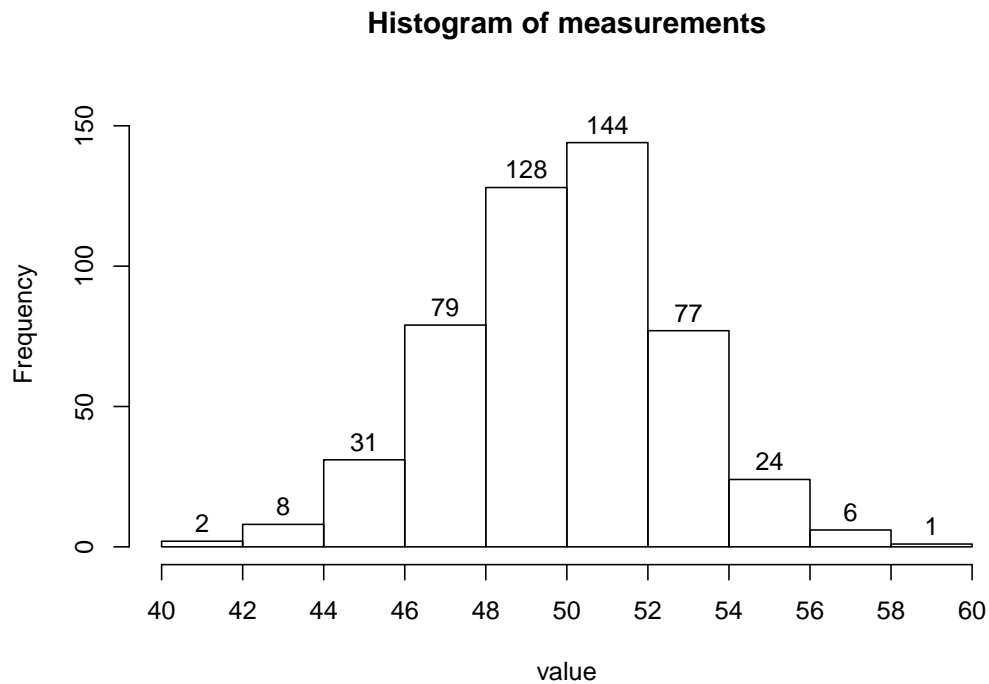


1. Problem

A continuous random variable was measured 500 times. The histogram is shown below.



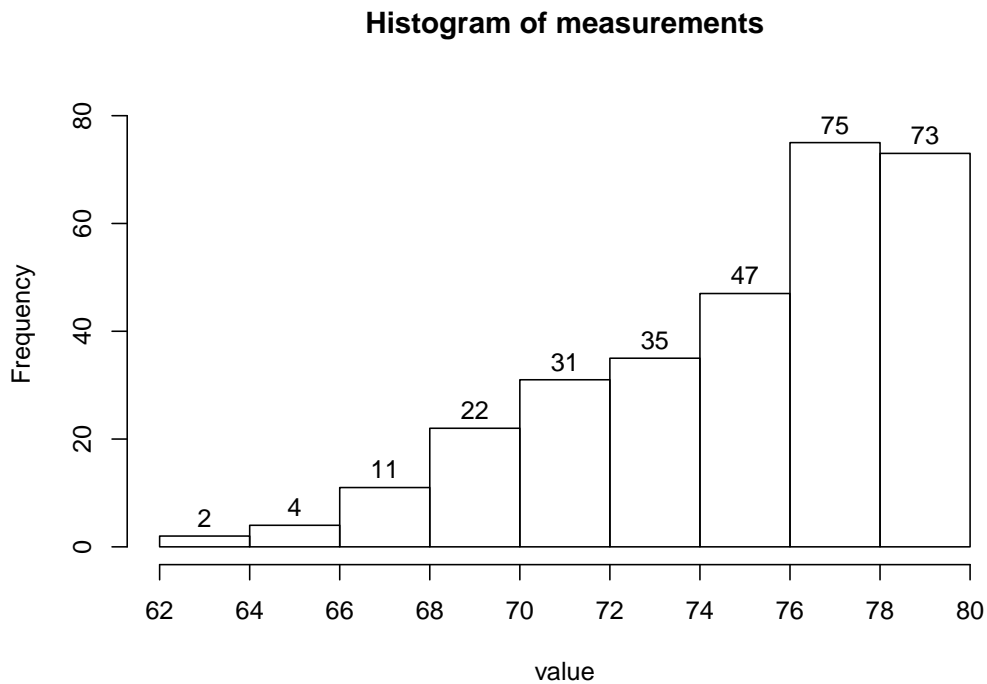
- (a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
- (b) Estimate the range of the distribution (range = max-min).
- (c) What percent of the measurements are greater than 46?
- (d) What percent of the measurements are less than 50?
- (e) Of the measurements greater than 46, what percent are less than 50?
- (f) Estimate the value of the 93.8th percentile.

Solution

- (a) symmetric mound
- (b) 20
- (c) 91.8%
- (d) 49.6%
- (e) 45.1%
- (f) 54

2. 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 greater than 70?
- (d) What percent of the measurements are less than 78?
- (e) Of the measurements greater than 70, what percent are less than 78?
- (f) Estimate the value of the 5.667th percentile.

Solution

- (a) skew left
- (b) 18
- (c) 87%
- (d) 75.67%
- (e) 72.03%
- (f) 68