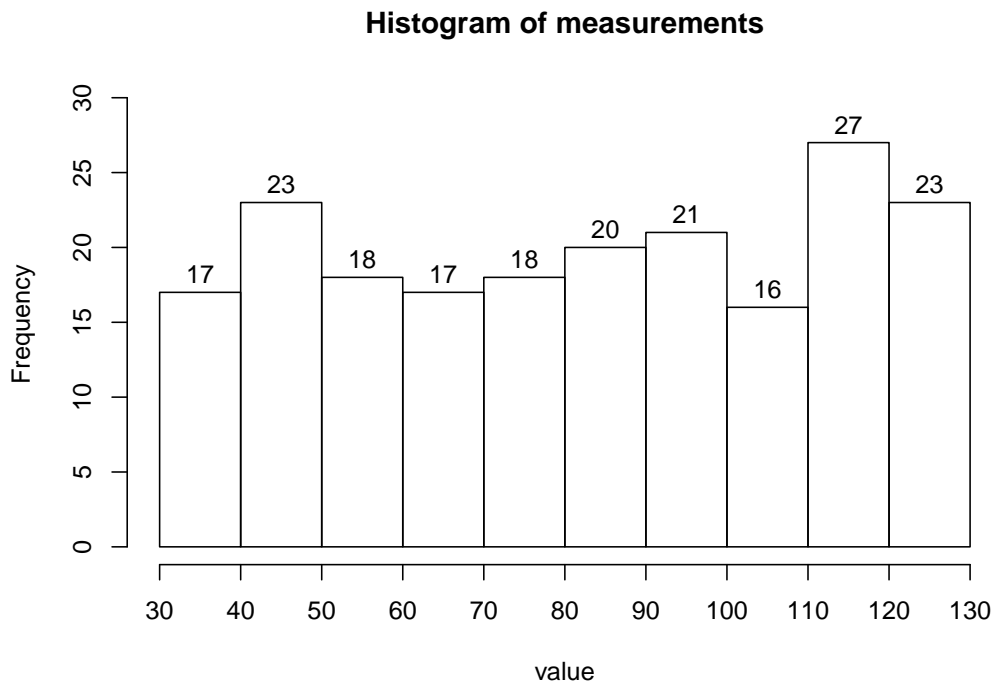


1. Problem

A continuous random variable was measured 200 times. The histogram is shown below.



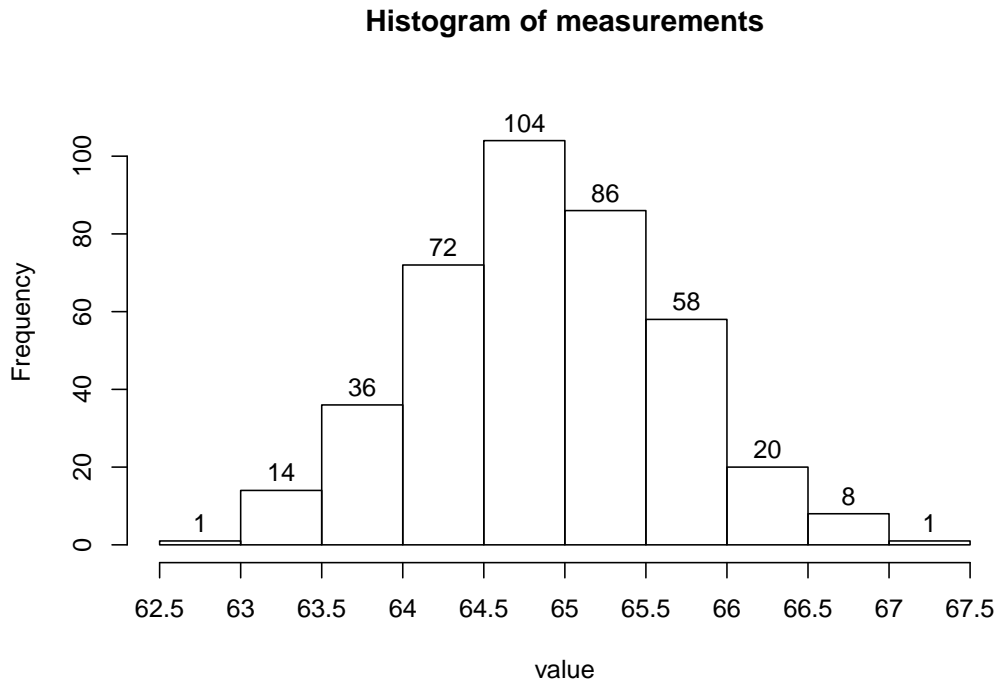
- (a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
- (b) Estimate the range of the distribution (range = max-min).
- (c) What percent of the measurements are less than 60?
- (d) What percent of the measurements are greater than 40?
- (e) Of the measurements less than 60, what percent are greater than 40?
- (f) Estimate the value of the 20th percentile.

Solution

- (a) uniform
- (b) 100
- (c) 29%
- (d) 91.5%
- (e) 70.69%
- (f) 50

2. Problem

A continuous random variable was measured 400 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 66?
- (d) What percent of the measurements are greater than 66.5?
- (e) Of the measurements greater than 66, what percent are greater than 66.5?
- (f) Estimate the value of the 0.25th percentile.

Solution

- (a) symmetric mound
- (b) 5
- (c) 7.25%
- (d) 2.25%
- (e) 31.03%
- (f) 63