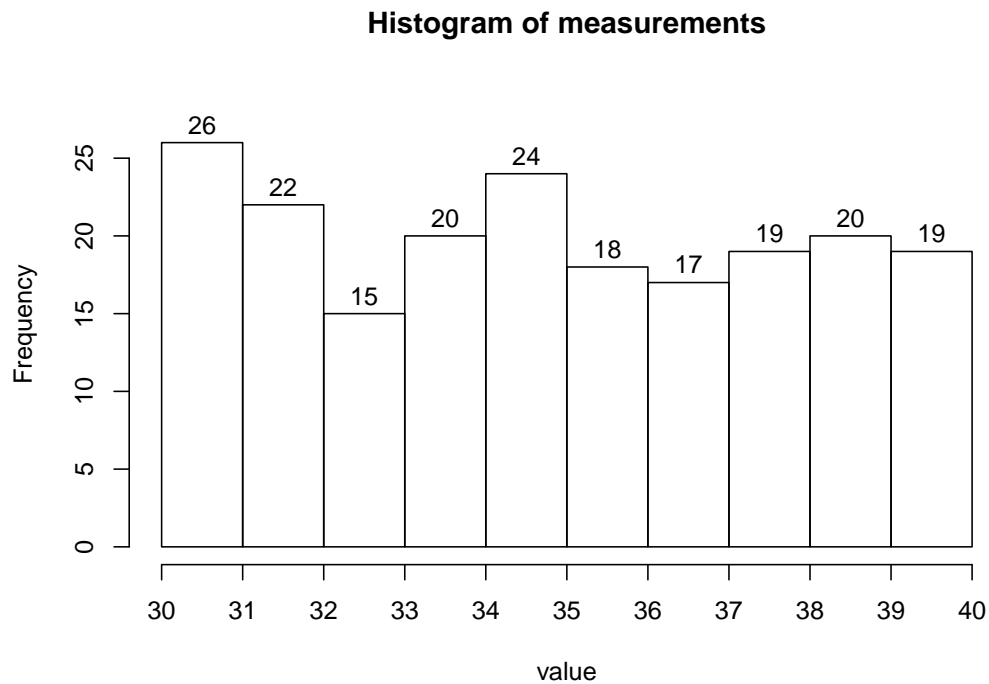


1. Problem

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



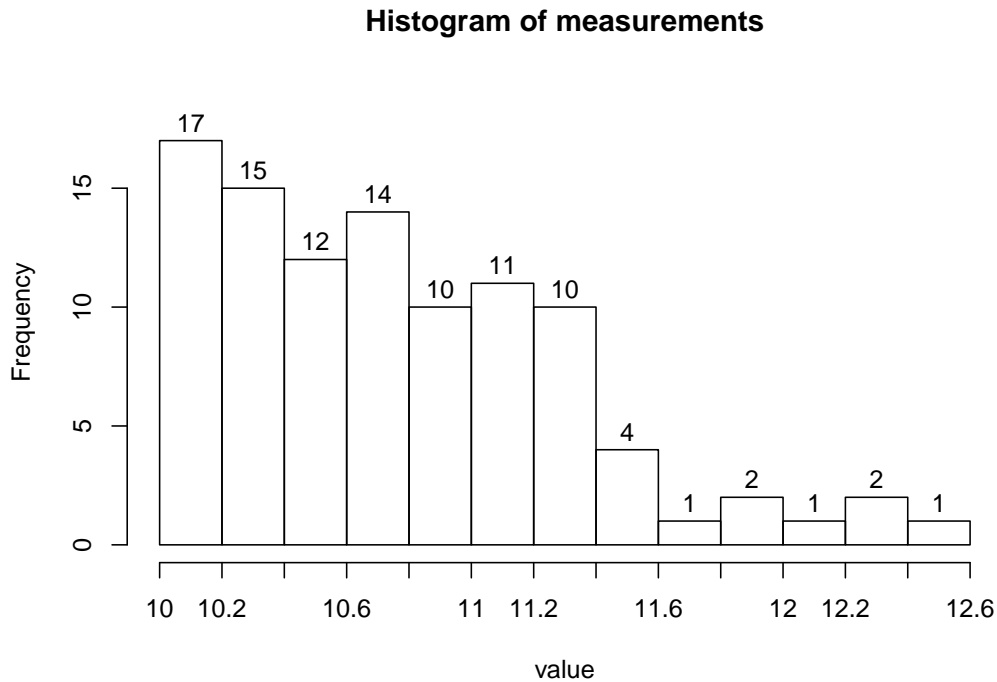
- (a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
- (b) Estimate the range of the distribution (range = max-min).
- (c) What percent of the measurements are less than 33?
- (d) What percent of the measurements are greater than 32?
- (e) Of the measurements less than 33, what percent are greater than 32?
- (f) Estimate the value of the 62.5th percentile.

Solution

- (a) uniform
- (b) 10
- (c) 31.5%
- (d) 76%
- (e) 23.81%
- (f) 36

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 11.4?
- (d) What percent of the measurements are greater than 11.6?
- (e) Of the measurements greater than 11.4, what percent are greater than 11.6?
- (f) Estimate the value of the 79th percentile.

Solution

- (a) skew right
- (b) 2.6
- (c) 11%
- (d) 7%
- (e) 63.64%
- (f) 11.2