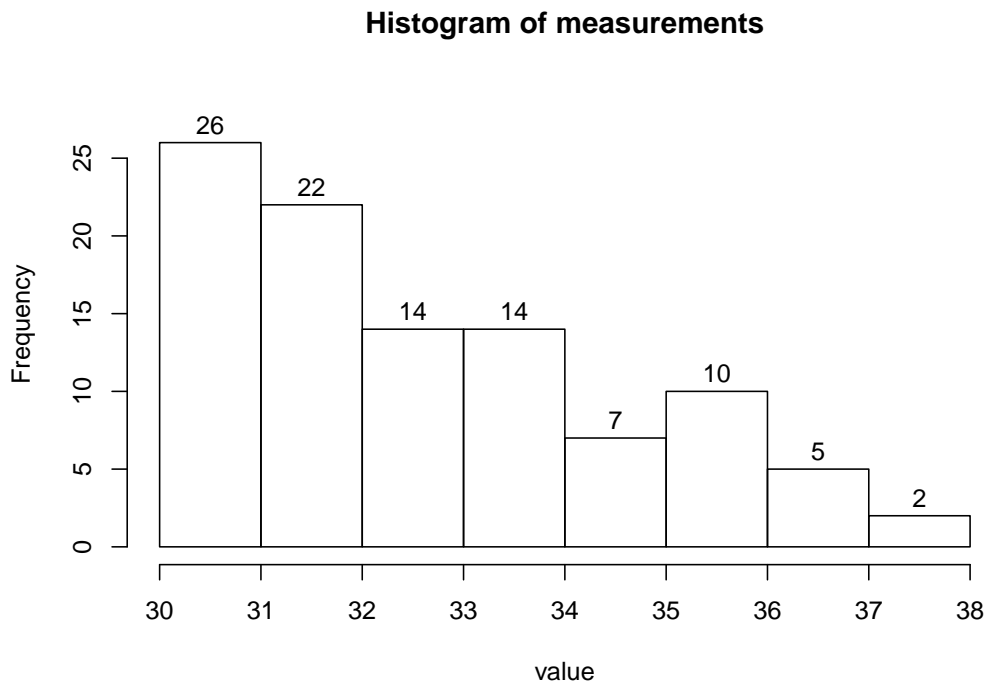


1. Problem

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



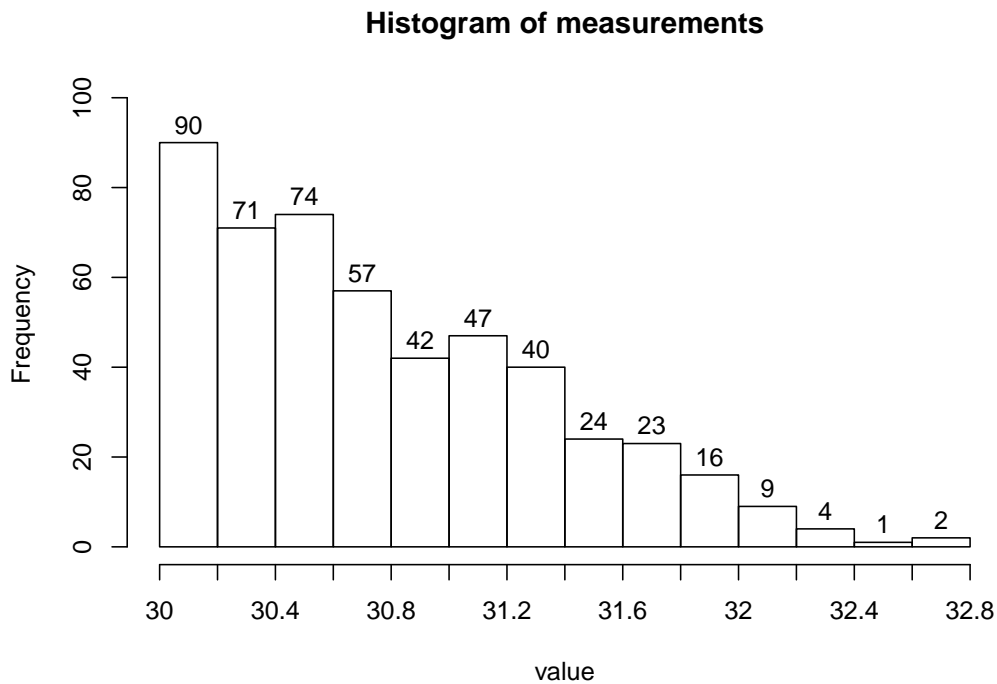
- (a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
- (b) Estimate the range of the distribution (range = max-min).
- (c) What percent of the measurements are greater than 35?
- (d) What percent of the measurements are greater than 37?
- (e) Of the measurements greater than 35, what percent are greater than 37?
- (f) Estimate the value of the 48th percentile.

Solution

- (a) skew right
- (b) 8
- (c) 17%
- (d) 2%
- (e) 11.76%
- (f) 32

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 greater than 31.4?
- (d) What percent of the measurements are greater than 32.2?
- (e) Of the measurements greater than 31.4, what percent are greater than 32.2?
- (f) Estimate the value of the 99.4th percentile.

Solution

- (a) skew right
- (b) 2.8
- (c) 15.8%
- (d) 1.4%
- (e) 8.861%
- (f) 32.4