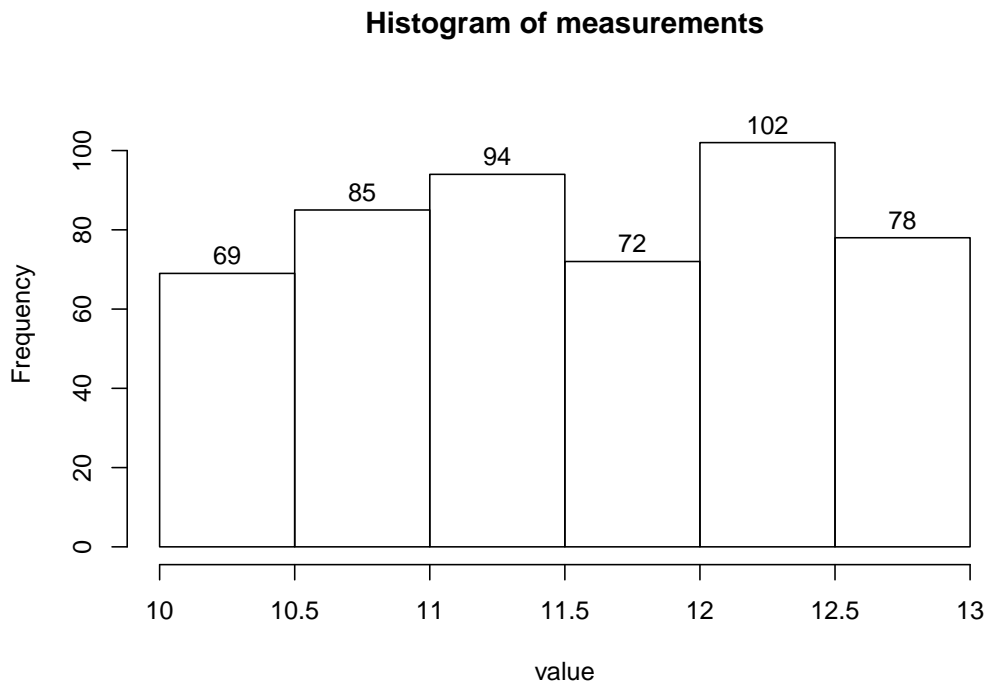


1. Problem

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



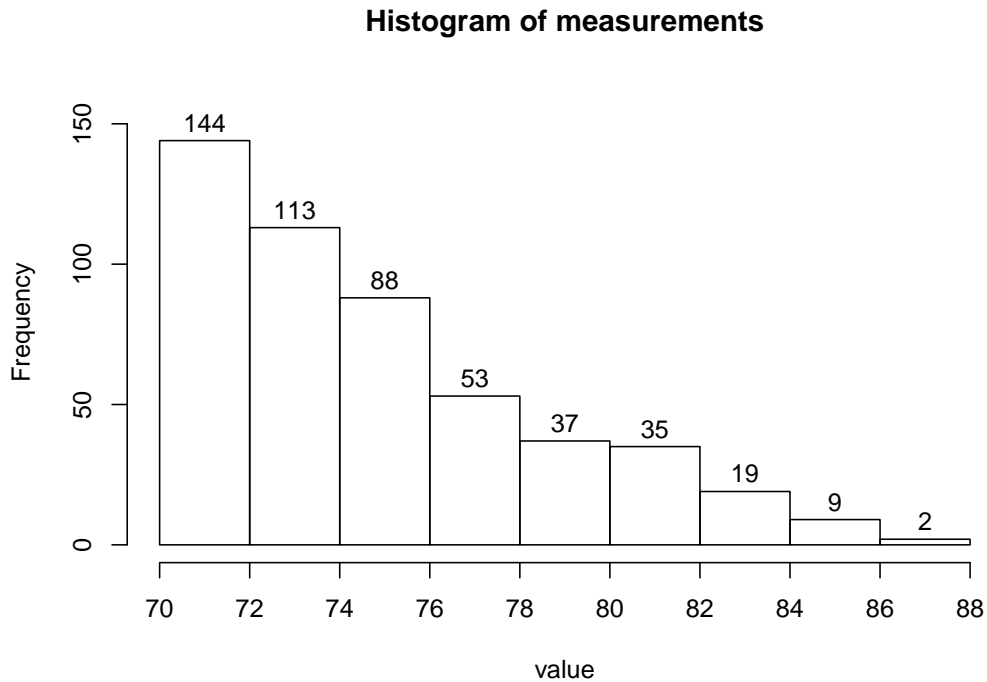
- (a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
- (b) Estimate the range of the distribution (range = max-min).
- (c) What percent of the measurements are greater than 11.5?
- (d) What percent of the measurements are less than 12.5?
- (e) Of the measurements greater than 11.5, what percent are less than 12.5?
- (f) Estimate the value of the 64th percentile.

Solution

- (a) uniform
- (b) 3
- (c) 50.4%
- (d) 84.4%
- (e) 69.05%
- (f) 12

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 74?
- (d) What percent of the measurements are greater than 70?
- (e) Of the measurements less than 74, what percent are greater than 70?
- (f) Estimate the value of the 69th percentile.

Solution

- (a) skew right
- (b) 18
- (c) 51.4%
- (d) 100%
- (e) 100%
- (f) 76