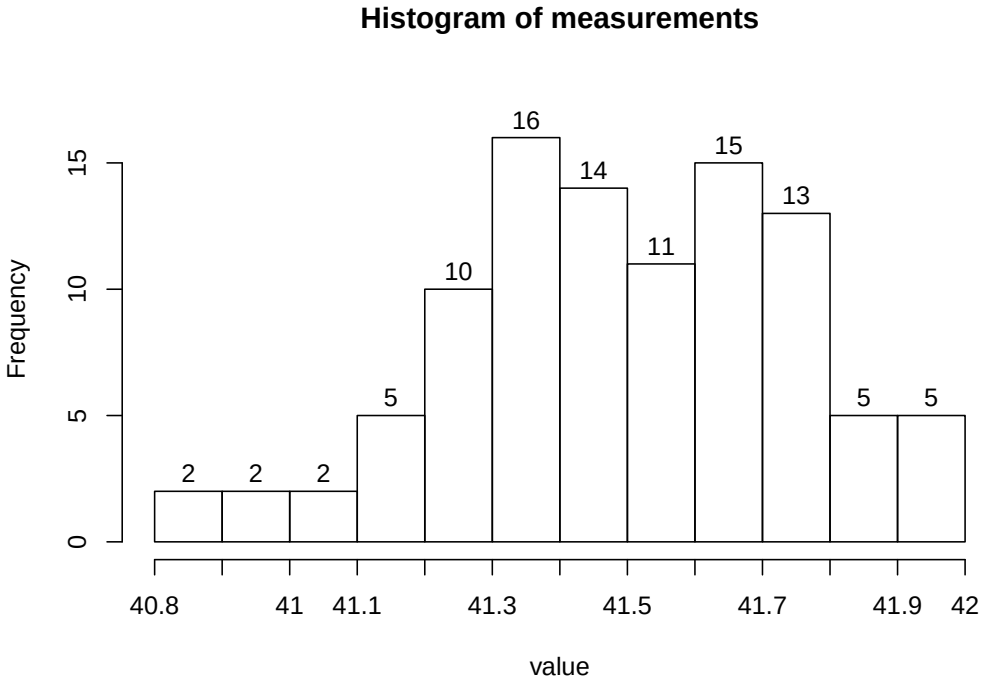
1. **Problem**
   A continuous random variable was measured 100 times. The histogram is shown below.

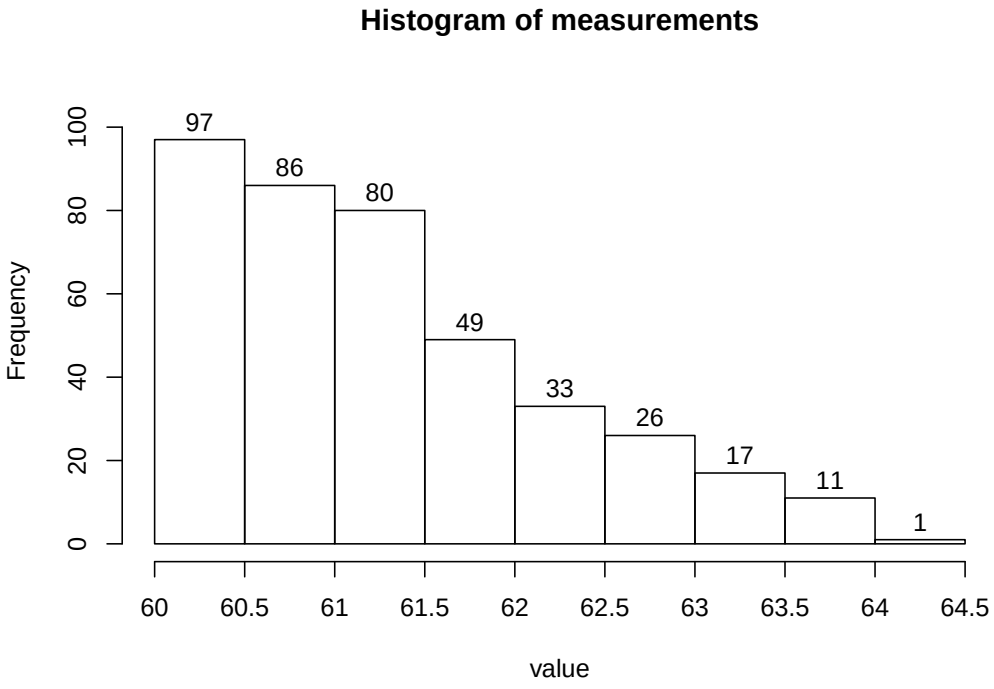


   (a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
   (b) Estimate the range of the distribution (range = max-min).
   (c) What percent of the measurements are less than 41.1?
   (d) What percent of the measurements are less than 40.9?
   (e) Of the measurements less than 41.1, what percent are less than 40.9?
   (f) Estimate the value of the 11th percentile.

Solution

   (a) symmetric mound
   (b) 1.2
   (c) 6%
   (d) 2%
   (e) 33.33%
   (f) 41.2

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 62.5?

(d) What percent of the measurements are greater than 64?

(e) Of the measurements greater than 62.5, what percent are greater than 64?

(f) Estimate the value of the 97th percentile.

Solution

(a) skew right

(b) 4.5

(c) 13.75%

(d) 0.25%

(e) 1.818%

(f) 63.5