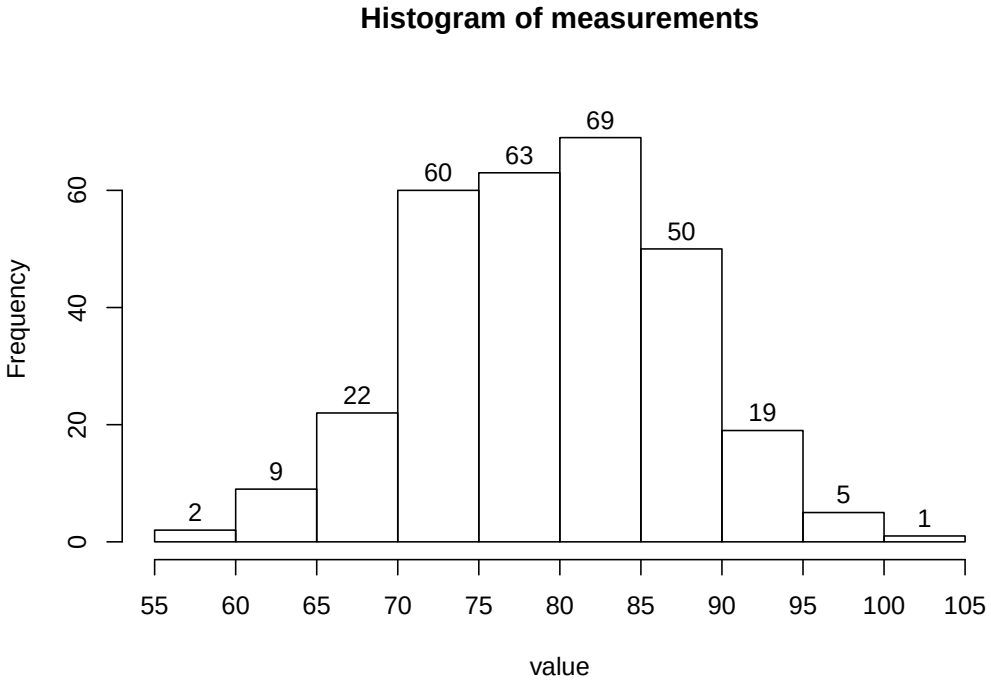
1. **Problem**
   A continuous random variable was measured 300 times. The histogram is shown below.

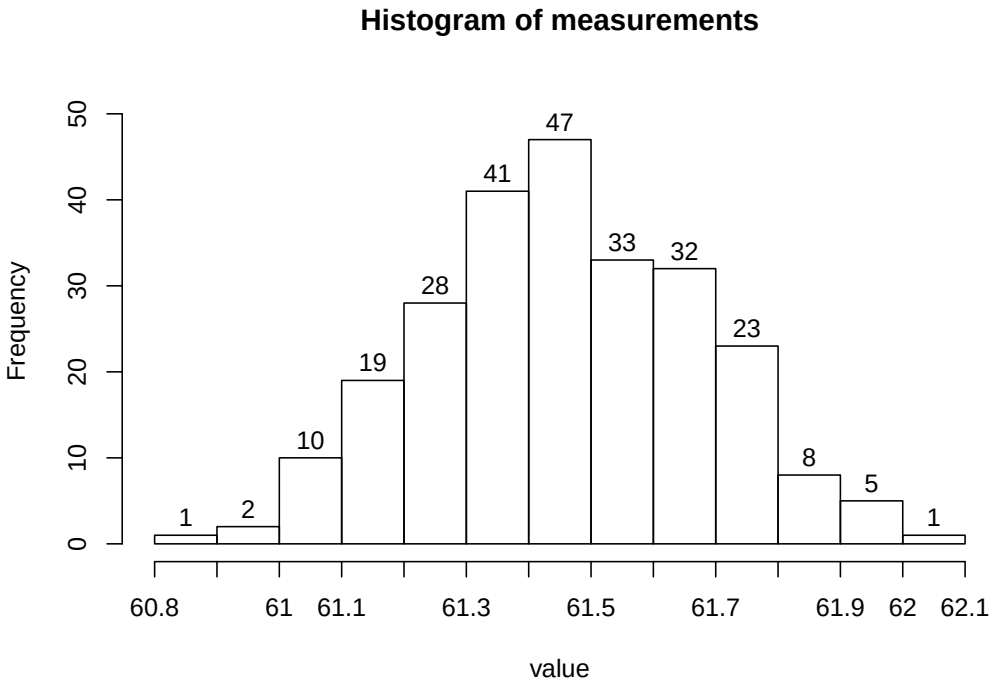


   (a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
   (b) Estimate the range of the distribution (range = max-min).
   (c) What percent of the measurements are greater than 80?
   (d) What percent of the measurements are less than 100?
   (e) Of the measurements greater than 80, what percent are less than 100?
   (f) Estimate the value of the 75th percentile.

Solution

   (a) symmetric mound
   (b) 50
   (c) 48%
   (d) 99.67%
   (e) 99.31%
   (f) 85

2. **Problem**
A continuous random variable was measured 250 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 61.7?

(d) What percent of the measurements are less than 61.8?

(e) Of the measurements greater than 61.7, what percent are less than 61.8?

(f) Estimate the value of the 0.4th percentile.

Solution

(a) symmetric mound

(b) 1.3

(c) 14.8%

(d) 94.4%

(e) 62.16%

(f) 60.9