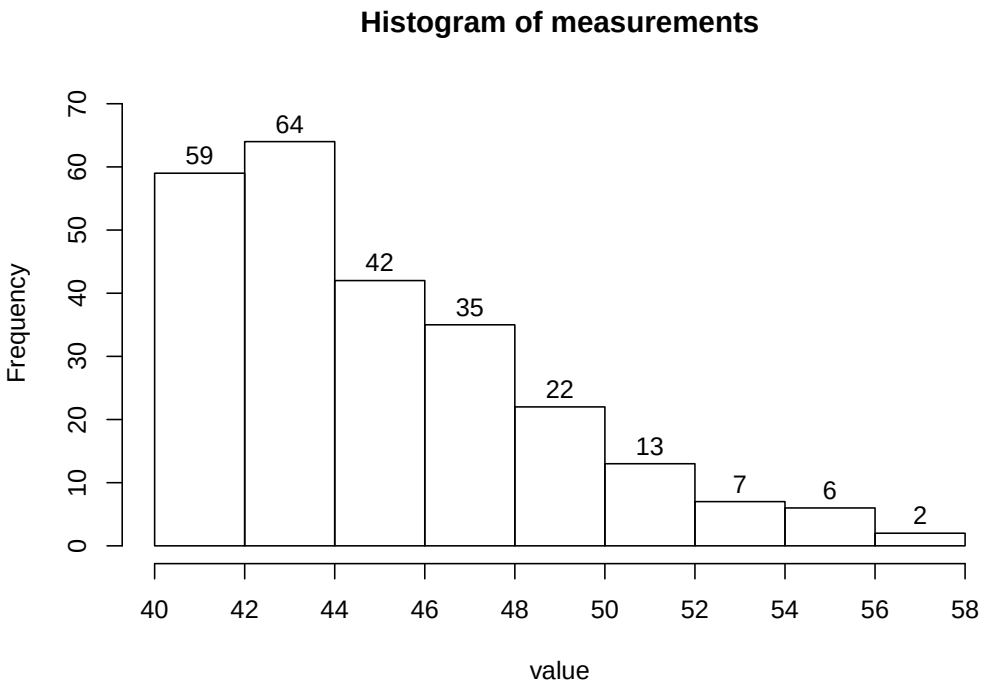
1. **Problem**
   A continuous random variable was measured 250 times. The histogram is shown below.

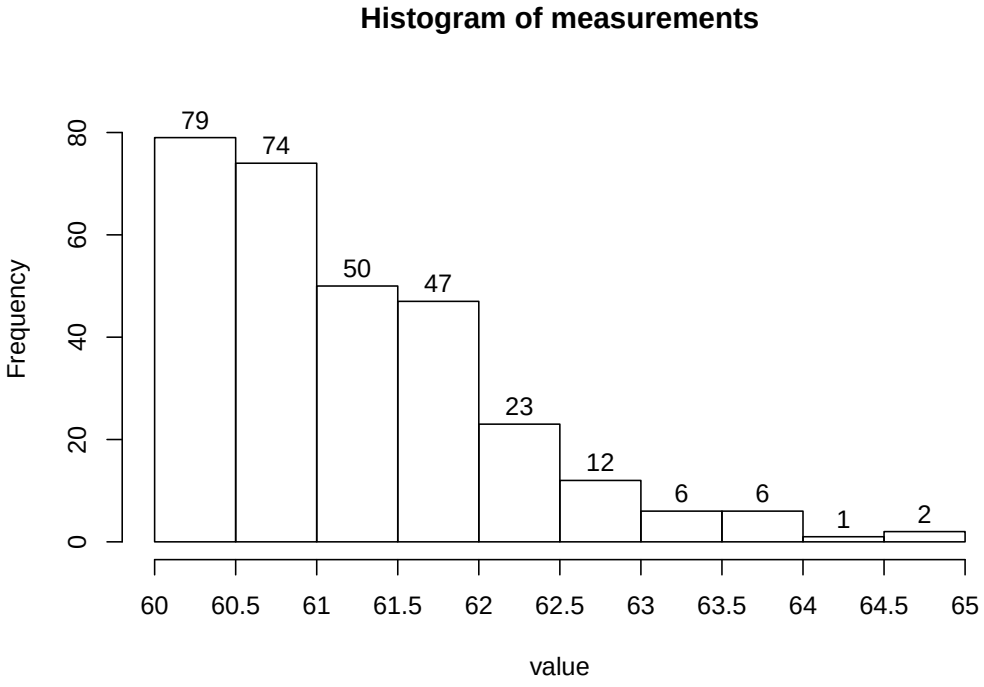


   (a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
   (b) Estimate the range of the distribution (range = max-min).
   (c) What percent of the measurements are greater than 44?
   (d) What percent of the measurements are less than 48?
   (e) Of the measurements greater than 44, what percent are less than 48?
   (f) Estimate the value of the 96.8th percentile.

Solution

   (a) skew right
   (b) 18
   (c) 50.8%
   (d) 80%
   (e) 60.63%
   (f) 54

2. **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 63?

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

(e) Of the measurements greater than 63, what percent are greater than 64?

(f) Estimate the value of the 51th percentile.

Solution

(a) skew right

(b) 5

(c) 5%

(d) 1%

(e) 20%

(f) 61