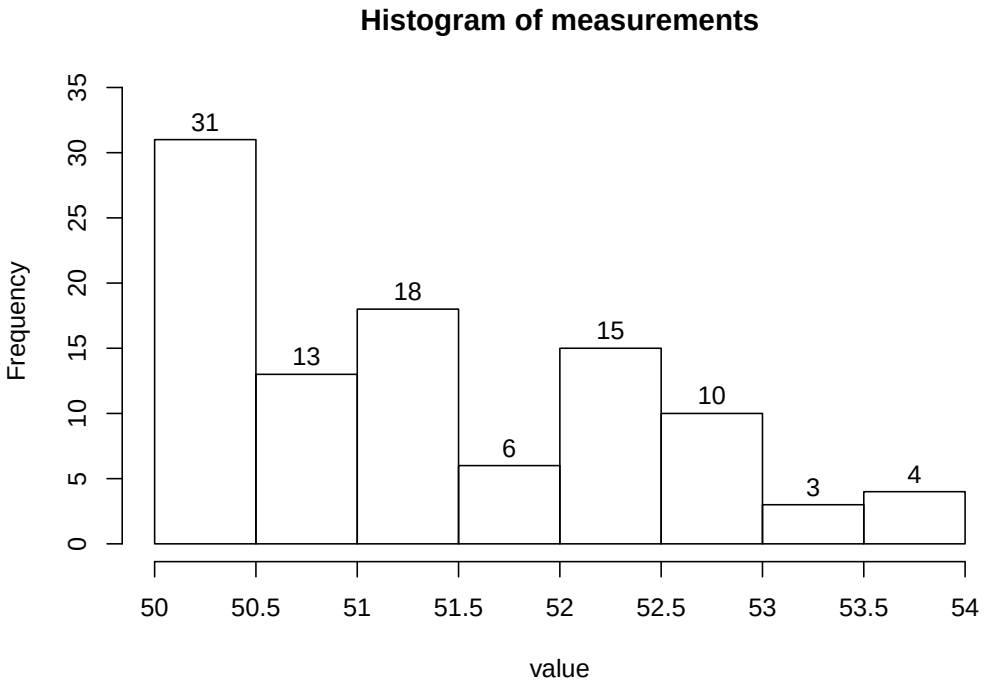
1. **Problem**
   A continuous random variable was measured 100 times. The histogram is shown below.

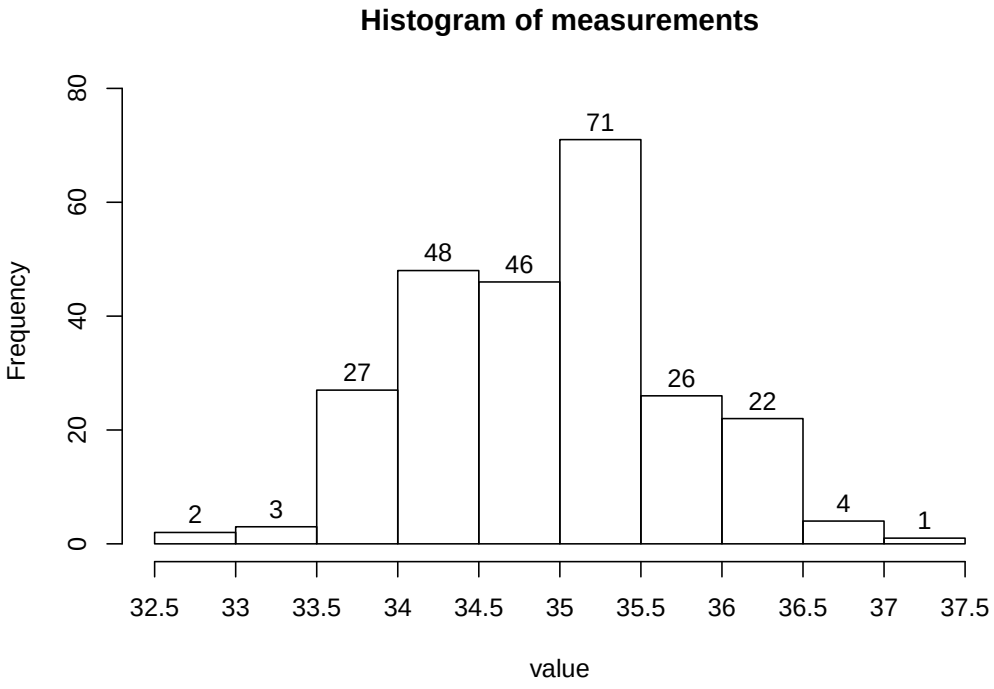


   (a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
   (b) Estimate the range of the distribution (range = max-min).
   (c) What percent of the measurements are greater than 52.5?
   (d) What percent of the measurements are less than 53.5?
   (e) Of the measurements greater than 52.5, what percent are less than 53.5?
   (f) Estimate the value of the 62th percentile.

Solution

   (a) skew right
   (b) 4
   (c) 17%
   (d) 96%
   (e) 76.47%
   (f) 51.5

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 less than 34.5?

(d) What percent of the measurements are less than 33?

(e) Of the measurements less than 34.5, what percent are less than 33?

(f) Estimate the value of the 98th percentile.

Solution

(a) symmetric mound

(b) 5

(c) 32%

(d) 0.8%

(e) 2.5%

(f) 36.5