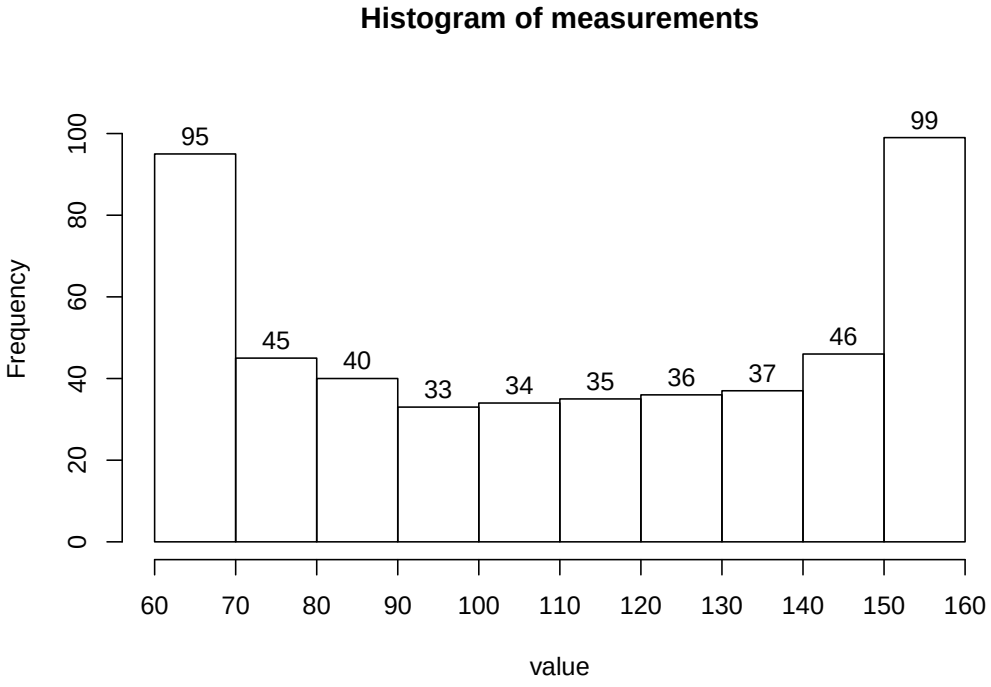
1. **Problem**
   A continuous random variable was measured 500 times. The histogram is shown below.

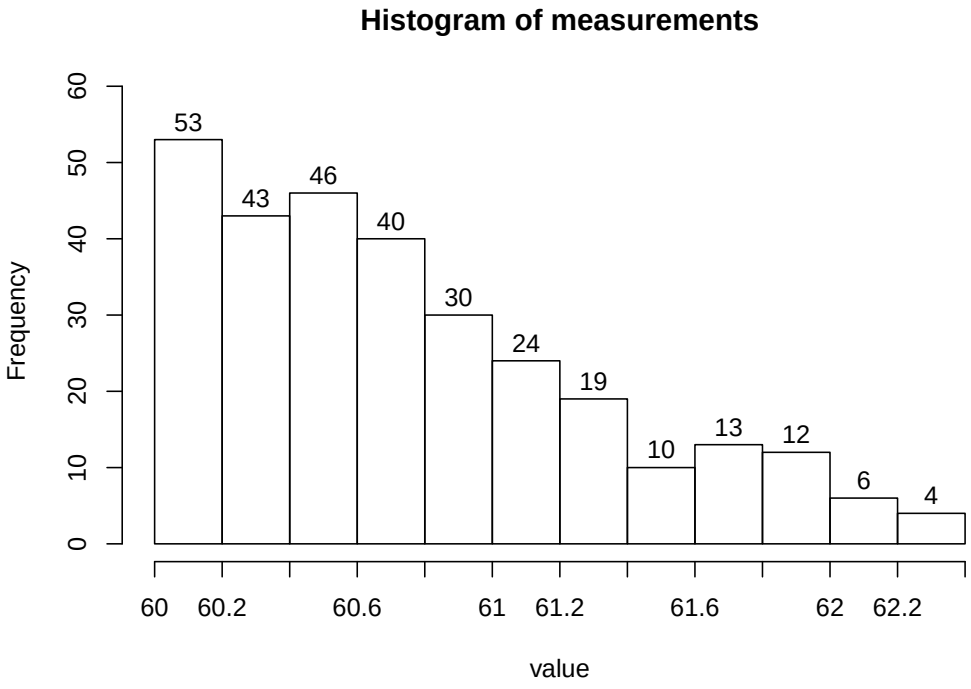


   (a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
   (b) Estimate the range of the distribution (range = max-min).
   (c) What percent of the measurements are greater than 130?
   (d) What percent of the measurements are greater than 150?
   (e) Of the measurements greater than 130, what percent are greater than 150?
   (f) Estimate the value of the 71th percentile.

Solution

   (a) bimodal
   (b) 100
   (c) 36.4%
   (d) 19.8%
   (e) 54.4%
   (f) 140

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 61.2?

(d) What percent of the measurements are greater than 61.6?

(e) Of the measurements greater than 61.2, what percent are greater than 61.6?

(f) Estimate the value of the 32th percentile.

Solution

(a) skew right

(b) 2.4

(c) 21.33%

(d) 11.67%

(e) 54.69%

(f) 60.4