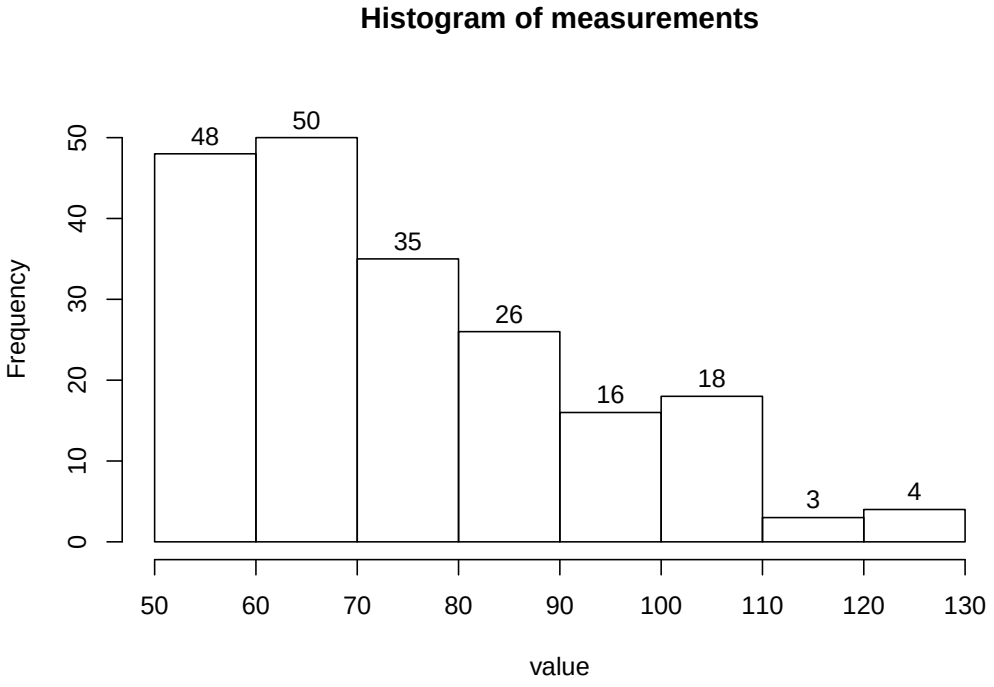
1. **Problem**
   A continuous random variable was measured 200 times. The histogram is shown below.

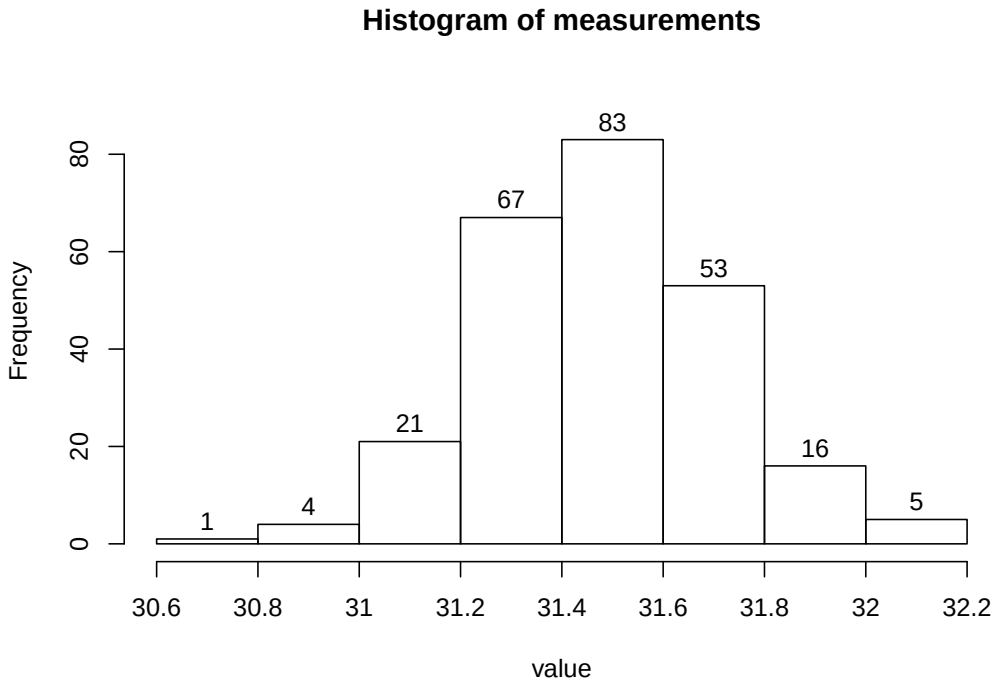


   (a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
   (b) Estimate the range of the distribution (range = max-min).
   (c) What percent of the measurements are less than 90?
   (d) What percent of the measurements are greater than 80?
   (e) Of the measurements less than 90, what percent are greater than 80?
   (f) Estimate the value of the 24th percentile.

Solution

   (a) skew right
   (b) 80
   (c) 79.5%
   (d) 33.5%
   (e) 16.35%
   (f) 60

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 31.2?

(d) What percent of the measurements are less than 31?

(e) Of the measurements less than 31.2, what percent are less than 31?

(f) Estimate the value of the 91.6th percentile.

Solution

(a) symmetric mound

(b) 1.6

(c) 10.4%

(d) 2%

(e) 19.23%

(f) 31.8