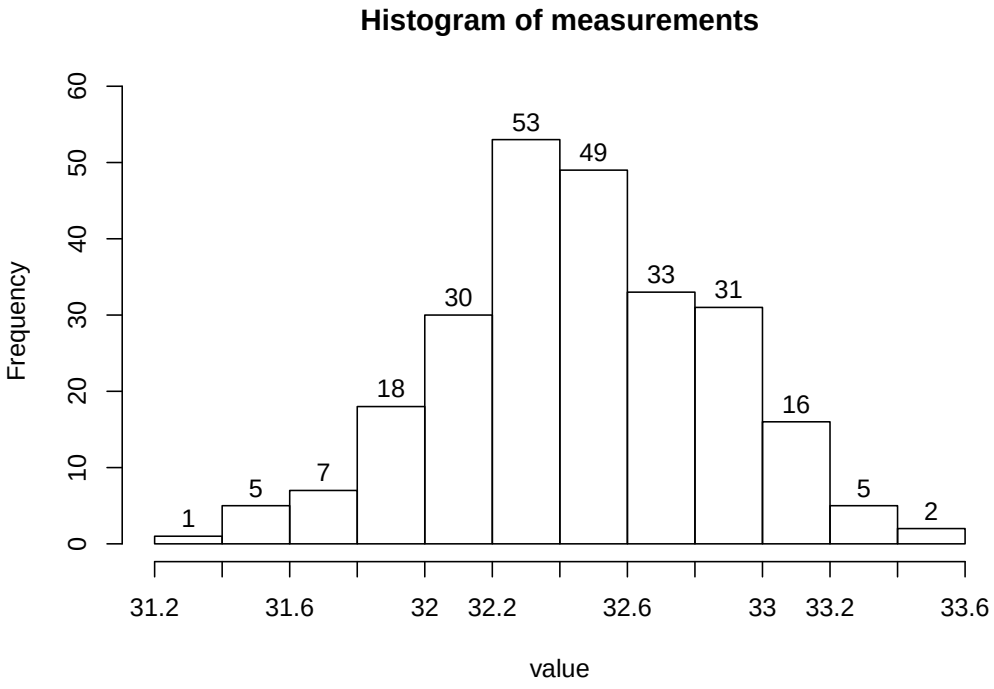
1. **Problem**
   A continuous random variable was measured 250 times. The histogram is shown below.

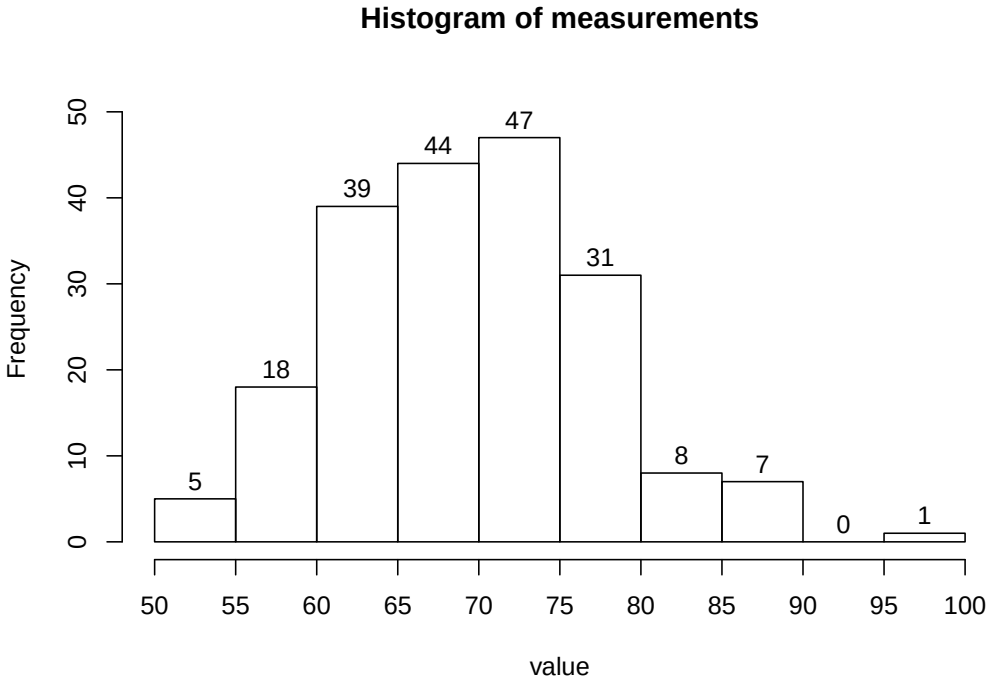


   (a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
   (b) Estimate the range of the distribution (range = max-min).
   (c) What percent of the measurements are greater than 32?
   (d) What percent of the measurements are greater than 32.8?
   (e) Of the measurements greater than 32, what percent are greater than 32.8?
   (f) Estimate the value of the 45.6th percentile.

Solution

   (a) symmetric mound
   (b) 2.4
   (c) 87.6%
   (d) 21.6%
   (e) 24.66%
   (f) 32.4

2. **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 75?

(d) What percent of the measurements are less than 70?

(e) Of the measurements less than 75, what percent are less than 70?

(f) Estimate the value of the 11.5th percentile.

Solution

(a) symmetric mound

(b) 50

(c) 76.5%

(d) 53%

(e) 69.28%

(f) 60