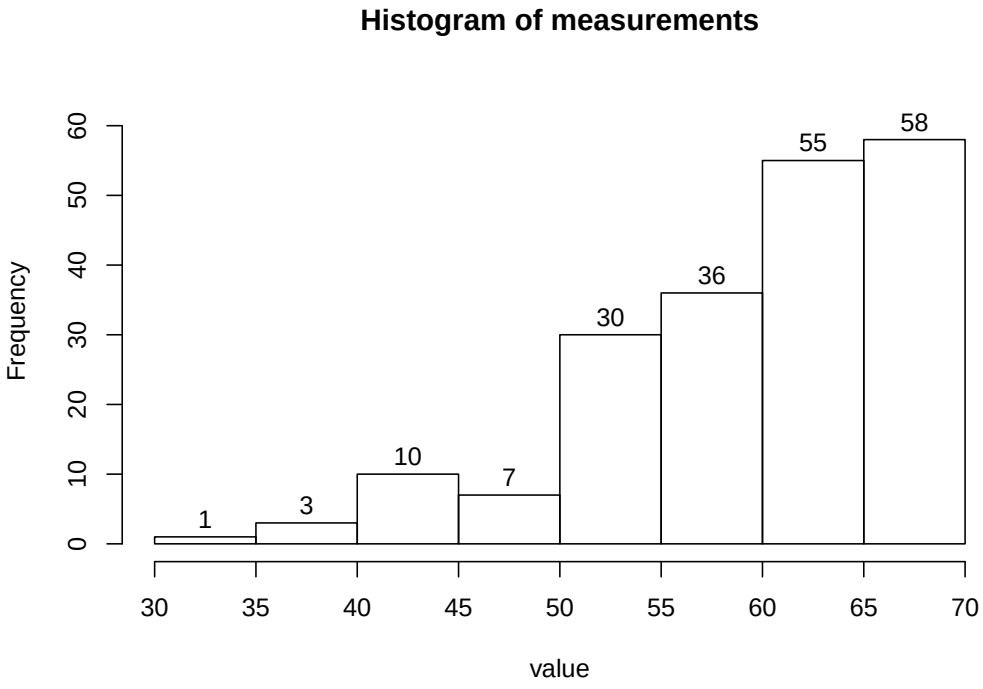
1. **Problem**
   A continuous random variable was measured 200 times. The histogram is shown below.

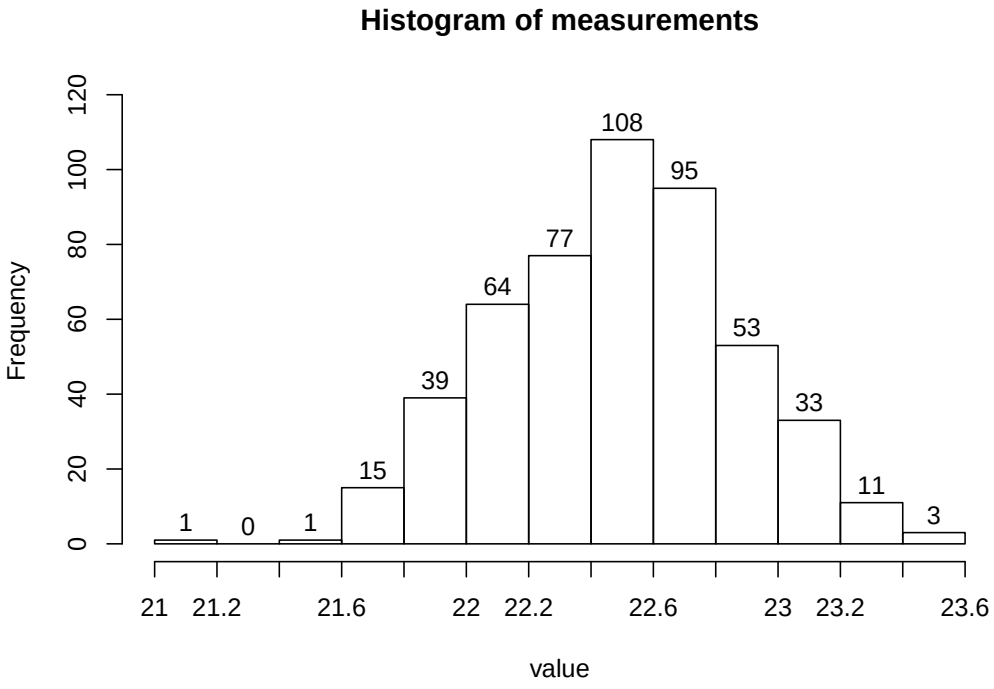


   (a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
   (b) Estimate the range of the distribution (range = max-min).
   (c) What percent of the measurements are less than 40?
   (d) What percent of the measurements are less than 35?
   (e) Of the measurements less than 40, what percent are less than 35?
   (f) Estimate the value of the 43.5th percentile.

Solution

   (a) skew left
   (b) 40
   (c) 2%
   (d) 0.5%
   (e) 25%
   (f) 60

2. **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 less than 22?

(d) What percent of the measurements are greater than 21.2?

(e) Of the measurements less than 22, what percent are greater than 21.2?

(f) Estimate the value of the 90.6th percentile.

Solution

(a) symmetric mound

(b) 2.6

(c) 11.2%

(d) 99.8%

(e) 98.21%

(f) 23