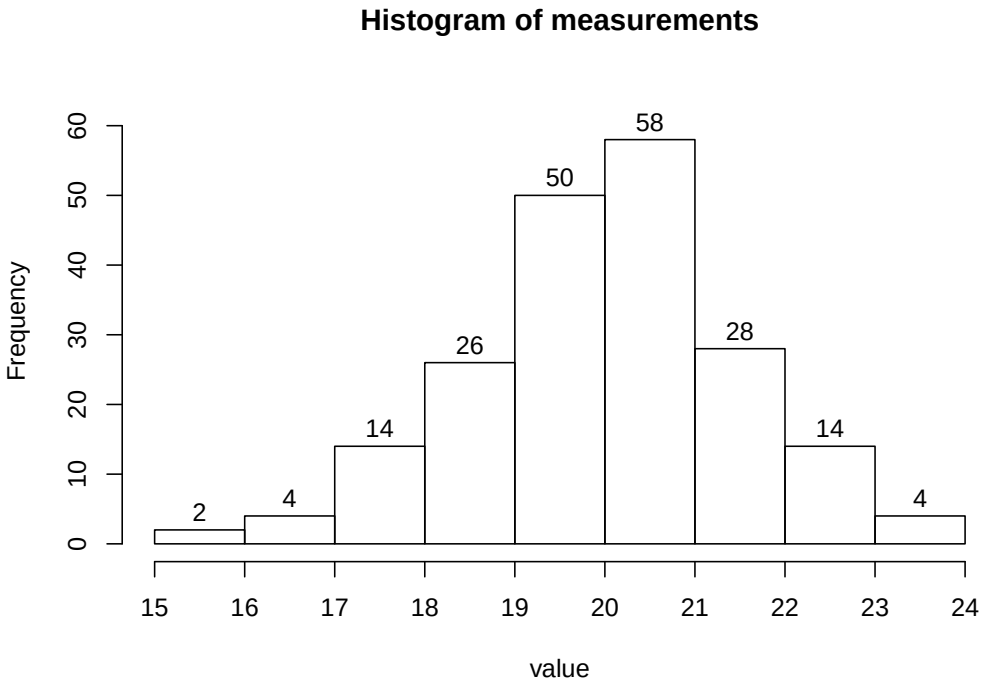
1. **Problem**
   A continuous random variable was measured 200 times. The histogram is shown below.

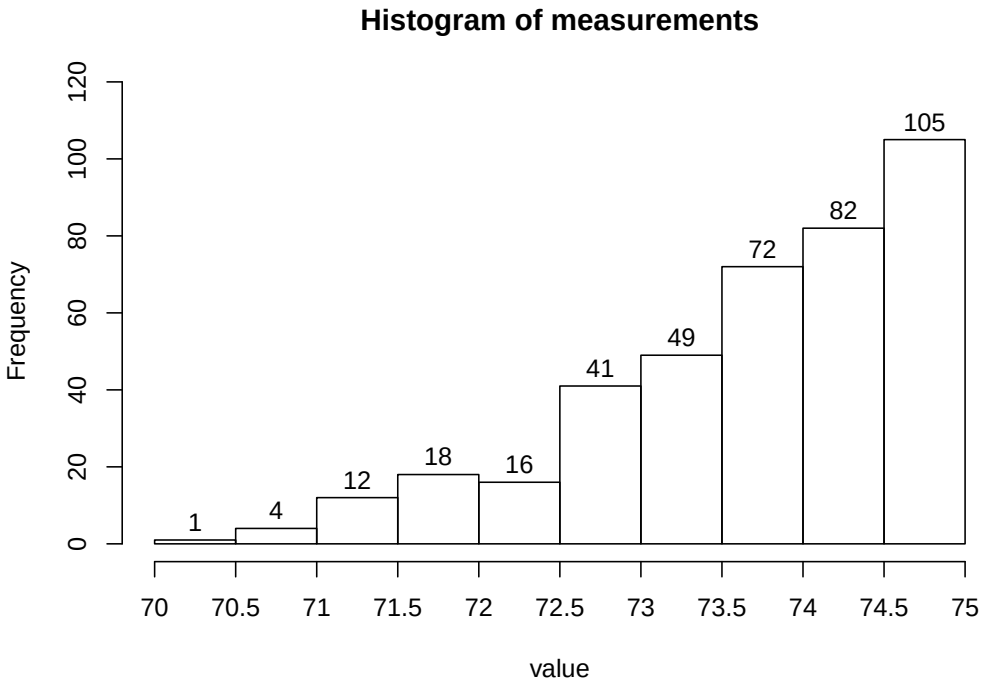


   (a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
   (b) Estimate the range of the distribution (range = max-min).
   (c) What percent of the measurements are less than 17?
   (d) What percent of the measurements are greater than 16?
   (e) Of the measurements less than 17, what percent are greater than 16?
   (f) Estimate the value of the 48th percentile.

Solution

   (a) symmetric mound
   (b) 9
   (c) 3%
   (d) 99%
   (e) 66.67%
   (f) 20

2. **Problem**
A continuous random variable was measured 400 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 71?

(d) What percent of the measurements are less than 73.5?

(e) Of the measurements greater than 71, what percent are less than 73.5?

(f) Estimate the value of the 0.25th percentile.

Solution

(a) skew left

(b) 5

(c) 98.75%

(d) 35.25%

(e) 34.43%

(f) 70.5