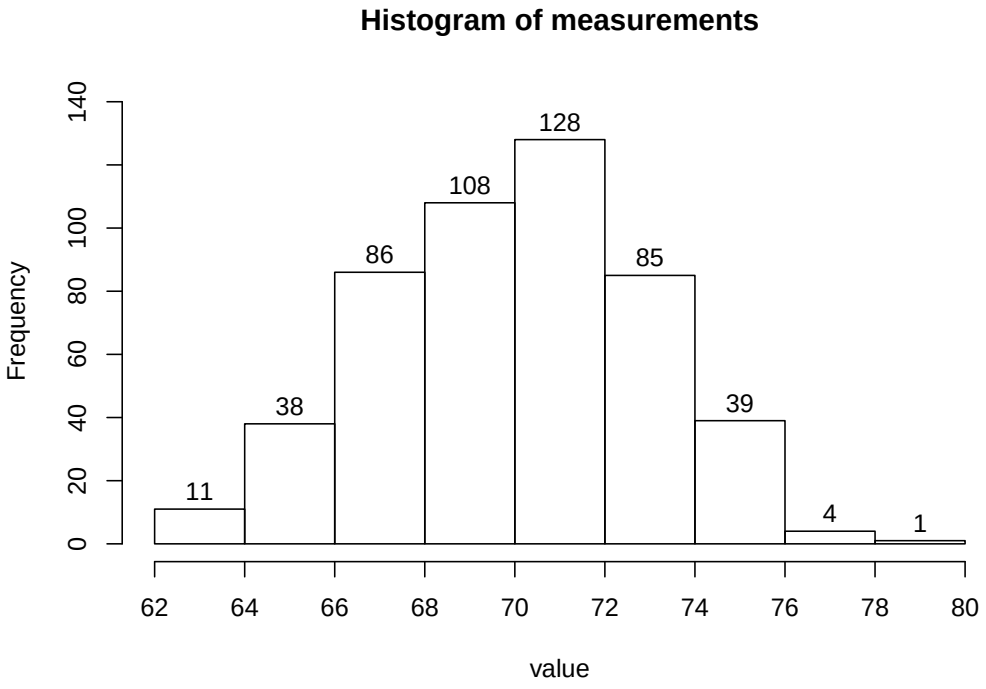
1. **Problem**
   A continuous random variable was measured 500 times. The histogram is shown below.

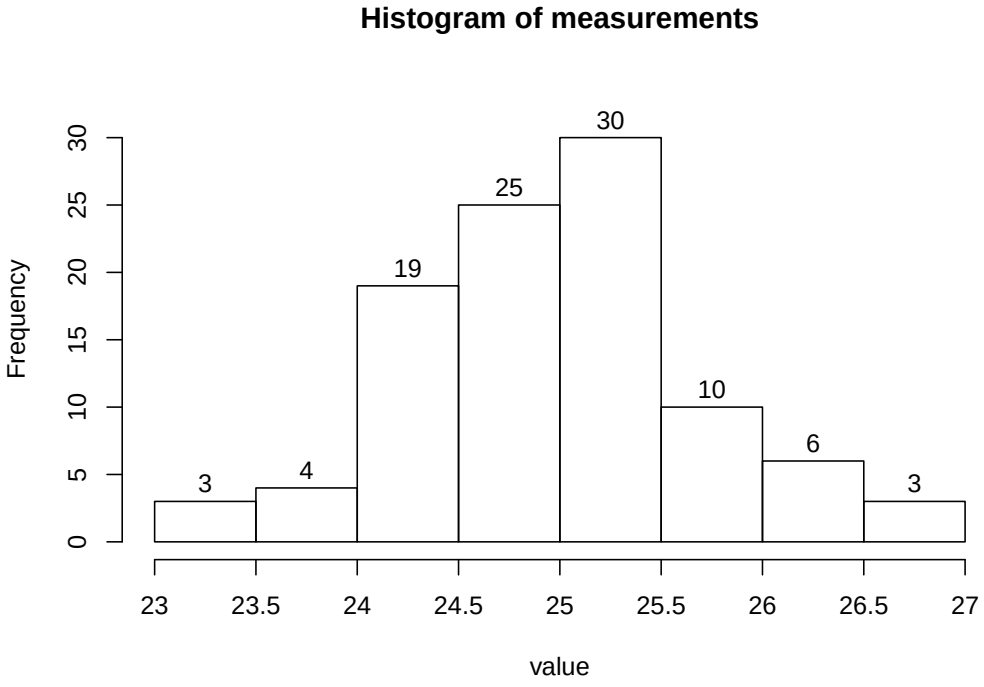


   (a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
   (b) Estimate the range of the distribution (range = max-min).
   (c) What percent of the measurements are greater than 68?
   (d) What percent of the measurements are greater than 74?
   (e) Of the measurements greater than 68, what percent are greater than 74?
   (f) Estimate the value of the 9.8th percentile.

Solution

   (a) symmetric mound
   (b) 18
   (c) 73%
   (d) 8.8%
   (e) 12.05%
   (f) 66

2. **Problem**
A continuous random variable was measured 100 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 24?

(d) What percent of the measurements are greater than 23.5?

(e) Of the measurements less than 24, what percent are greater than 23.5?

(f) Estimate the value of the 26th percentile.

Solution

(a) symmetric mound

(b) 4

(c) 7%

(d) 97%

(e) 57.14%

(f) 24.5