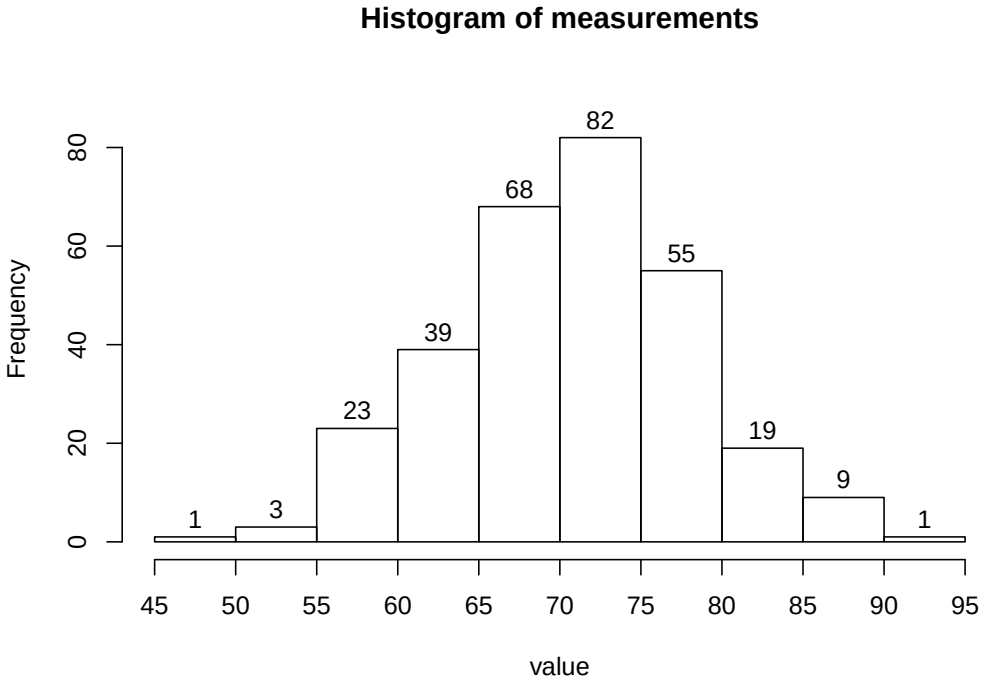
1. **Problem**
   A continuous random variable was measured 300 times. The histogram is shown below.

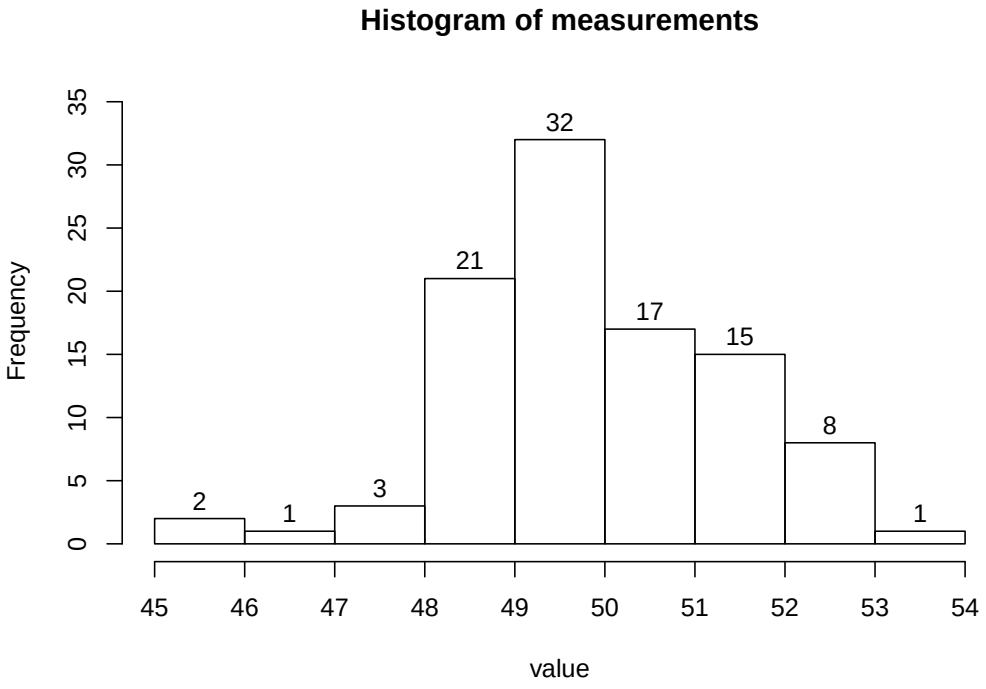


   (a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
   (b) Estimate the range of the distribution (range = max-min).
   (c) What percent of the measurements are less than 70?
   (d) What percent of the measurements are greater than 60?
   (e) Of the measurements less than 70, what percent are greater than 60?
   (f) Estimate the value of the 1.333th percentile.

Solution

   (a) symmetric mound
   (b) 50
   (c) 44.67%
   (d) 91%
   (e) 79.85%
   (f) 55

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 greater than 51?

(d) What percent of the measurements are less than 53?

(e) Of the measurements greater than 51, what percent are less than 53?

(f) Estimate the value of the 59th percentile.

Solution

(a) symmetric mound

(b) 9

(c) 24%

(d) 99%

(e) 95.83%

(f) 50