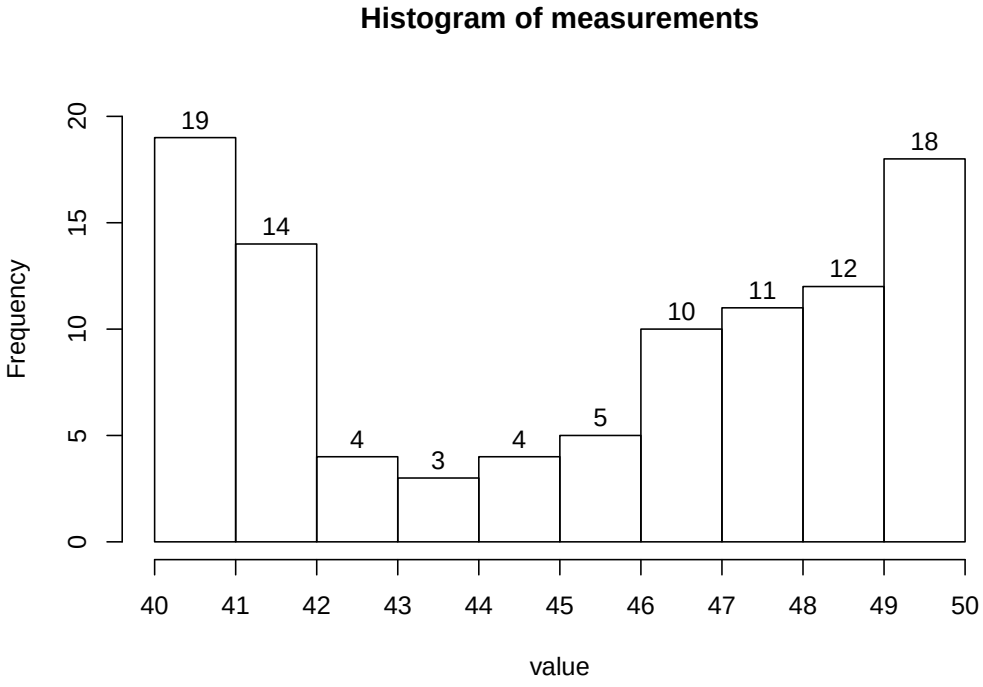
1. **Problem**
   A continuous random variable was measured 100 times. The histogram is shown below.

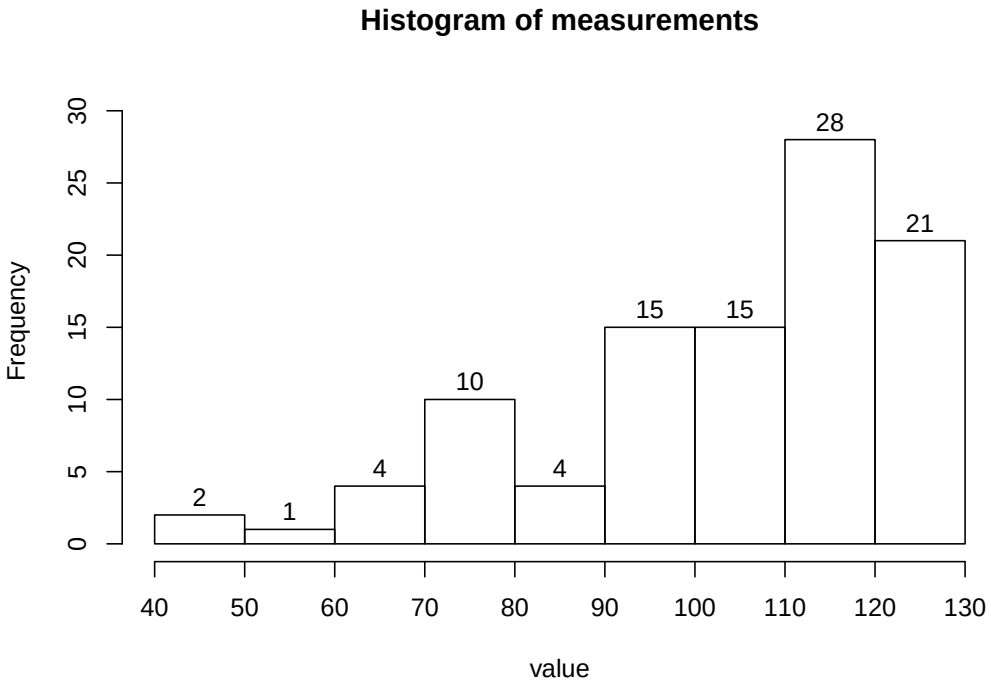


   (a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
   (b) Estimate the range of the distribution (range = max-min).
   (c) What percent of the measurements are greater than 45?
   (d) What percent of the measurements are greater than 49?
   (e) Of the measurements greater than 45, what percent are greater than 49?
   (f) Estimate the value of the 59th percentile.

Solution

   (a) bimodal
   (b) 10
   (c) 56%
   (d) 18%
   (e) 32.14%
   (f) 47

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 90?

(d) What percent of the measurements are less than 50?

(e) Of the measurements less than 90, what percent are less than 50?

(f) Estimate the value of the 3th percentile.

Solution

(a) skew left

(b) 90

(c) 21%

(d) 2%

(e) 9.524%

(f) 60