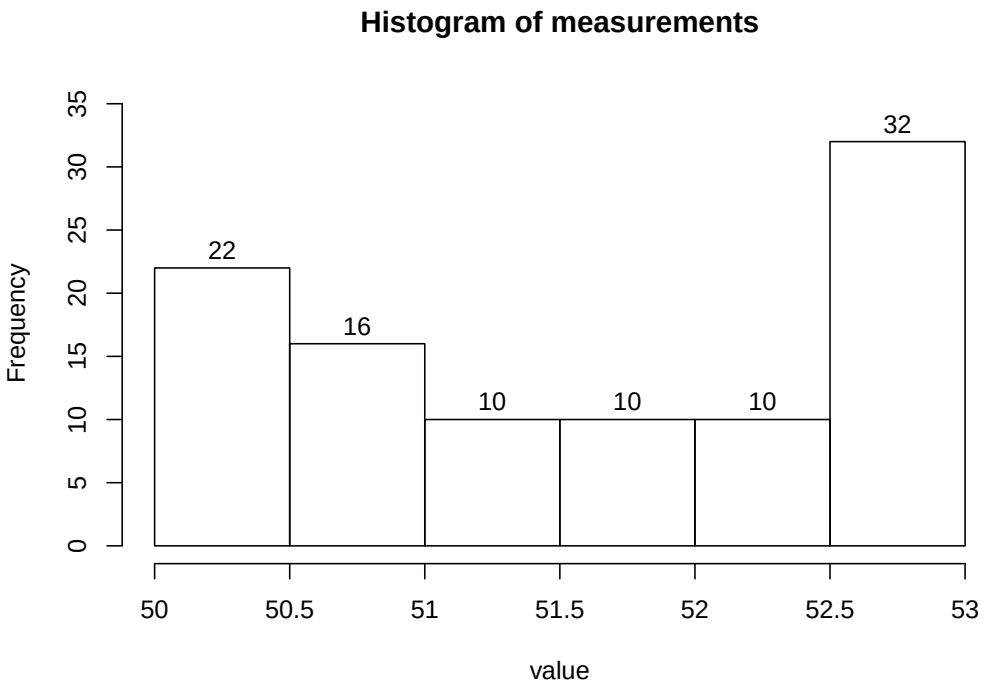
1. **Problem**
   A continuous random variable was measured 100 times. The histogram is shown below.

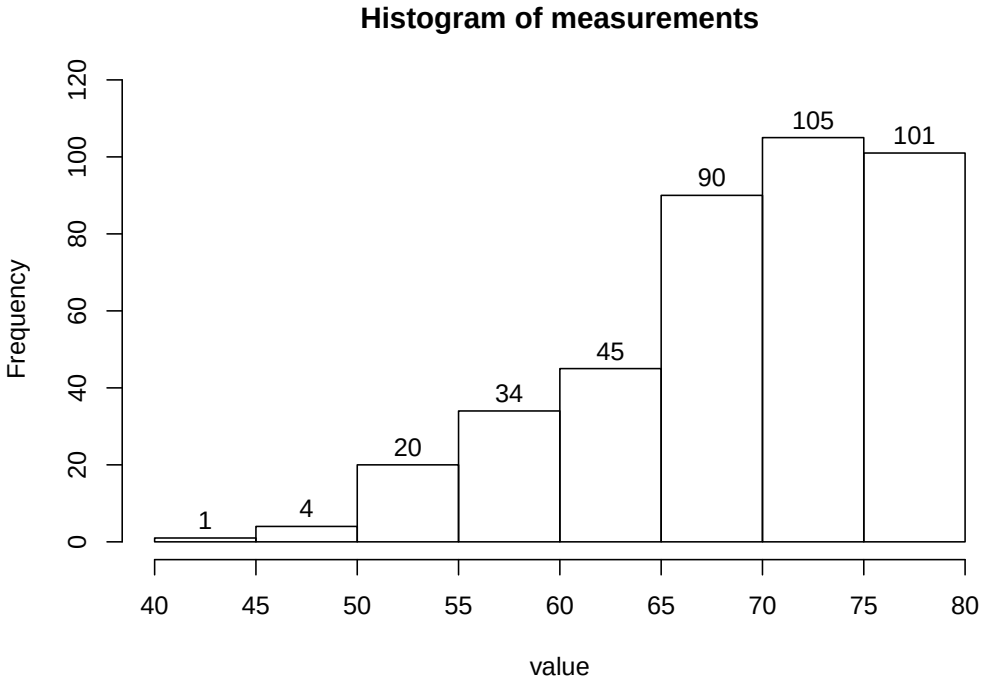


   (a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
   (b) Estimate the range of the distribution (range = max-min).
   (c) What percent of the measurements are greater than 51?
   (d) What percent of the measurements are greater than 51.5?
   (e) Of the measurements greater than 51, what percent are greater than 51.5?
   (f) Estimate the value of the 58th percentile.

Solution

   (a) bimodal
   (b) 3
   (c) 62%
   (d) 52%
   (e) 83.87%
   (f) 52

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 65?

(d) What percent of the measurements are greater than 75?

(e) Of the measurements greater than 65, what percent are greater than 75?

(f) Estimate the value of the 14.75th percentile.

Solution

(a) skew left

(b) 40

(c) 74%

(d) 25.25%

(e) 34.12%

(f) 60