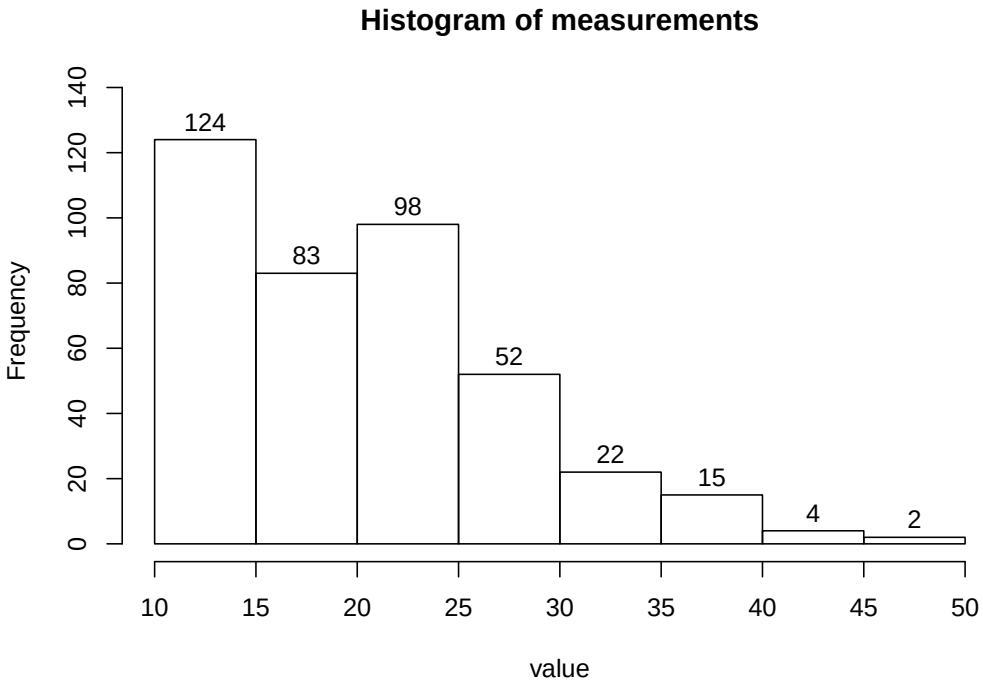
1. **Problem**
   A continuous random variable was measured 400 times. The histogram is shown below.

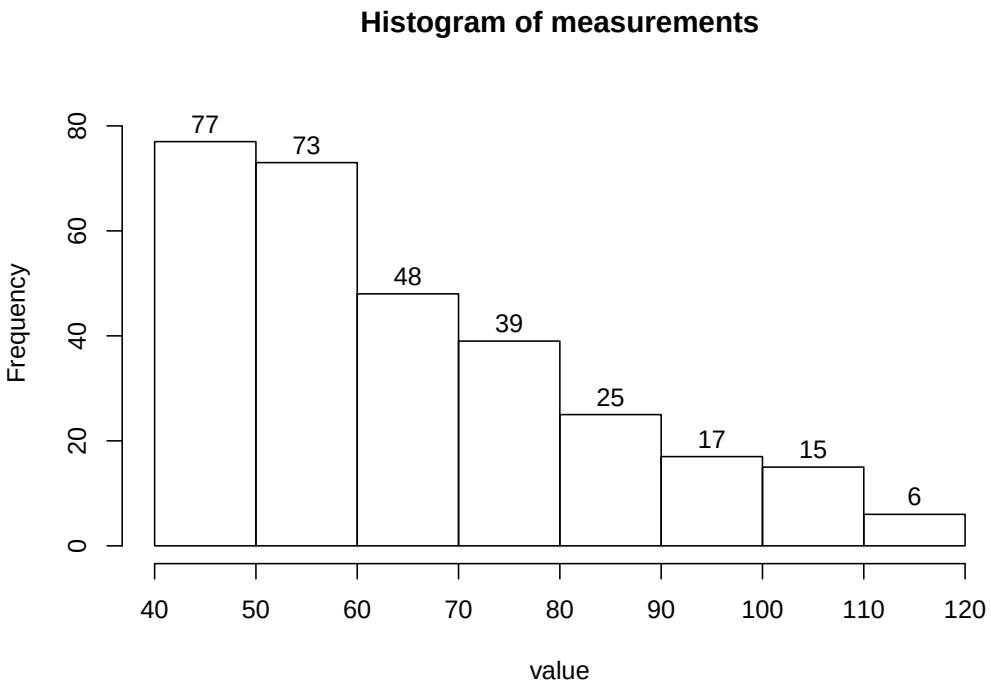


   (a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
   (b) Estimate the range of the distribution (range = max-min).
   (c) What percent of the measurements are greater than 35?
   (d) What percent of the measurements are greater than 45?
   (e) Of the measurements greater than 35, what percent are greater than 45?
   (f) Estimate the value of the 98.5th percentile.

Solution

   (a) skew right
   (b) 40
   (c) 5.25%
   (d) 0.5%
   (e) 9.524%
   (f) 40

2. **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 greater than 80?

(d) What percent of the measurements are greater than 100?

(e) Of the measurements greater than 80, what percent are greater than 100?

(f) Estimate the value of the 50th percentile.

Solution

(a) skew right

(b) 80

(c) 21%

(d) 7%

(e) 33.33%

(f) 60