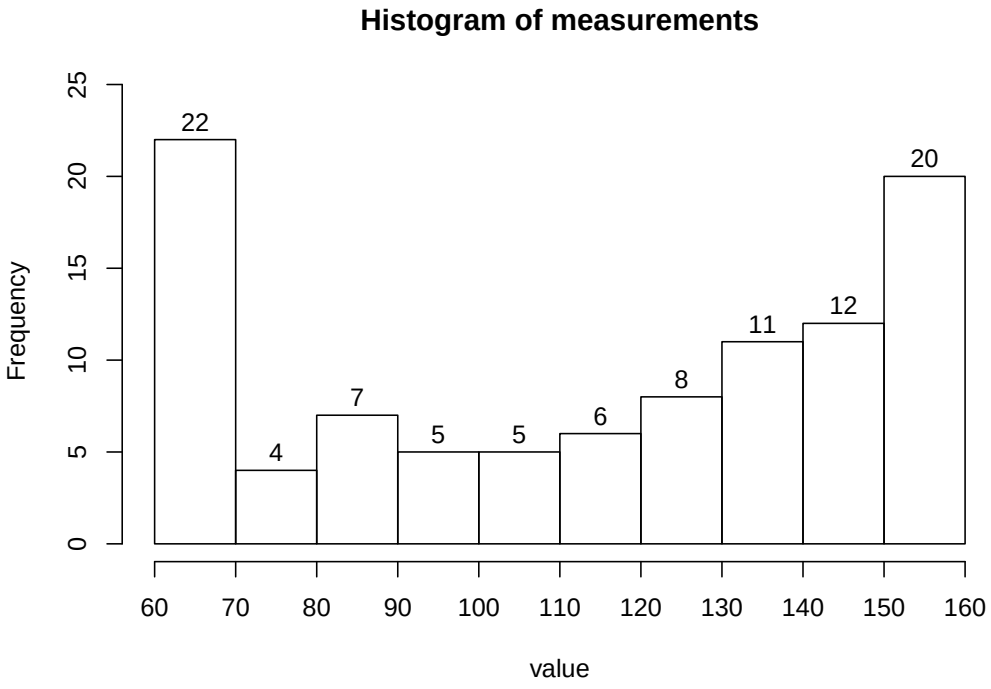
1. **Problem**
   A continuous random variable was measured 100 times. The histogram is shown below.

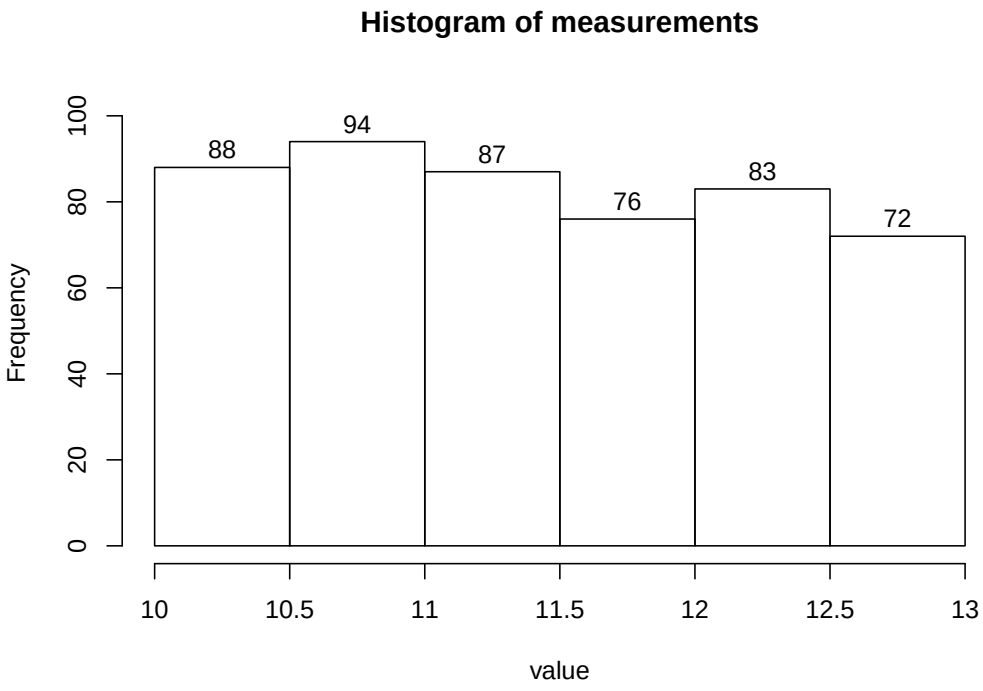


   (a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
   (b) Estimate the range of the distribution (range = max-min).
   (c) What percent of the measurements are greater than 120?
   (d) What percent of the measurements are greater than 150?
   (e) Of the measurements greater than 120, what percent are greater than 150?
   (f) Estimate the value of the 43th percentile.

Solution

   (a) bimodal
   (b) 100
   (c) 51%
   (d) 20%
   (e) 39.22%
   (f) 110

2. **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 11?

(d) What percent of the measurements are greater than 12?

(e) Of the measurements greater than 11, what percent are greater than 12?

(f) Estimate the value of the 17.6th percentile.

Solution

(a) uniform

(b) 3

(c) 63.6%

(d) 31%

(e) 48.74%

(f) 10.5