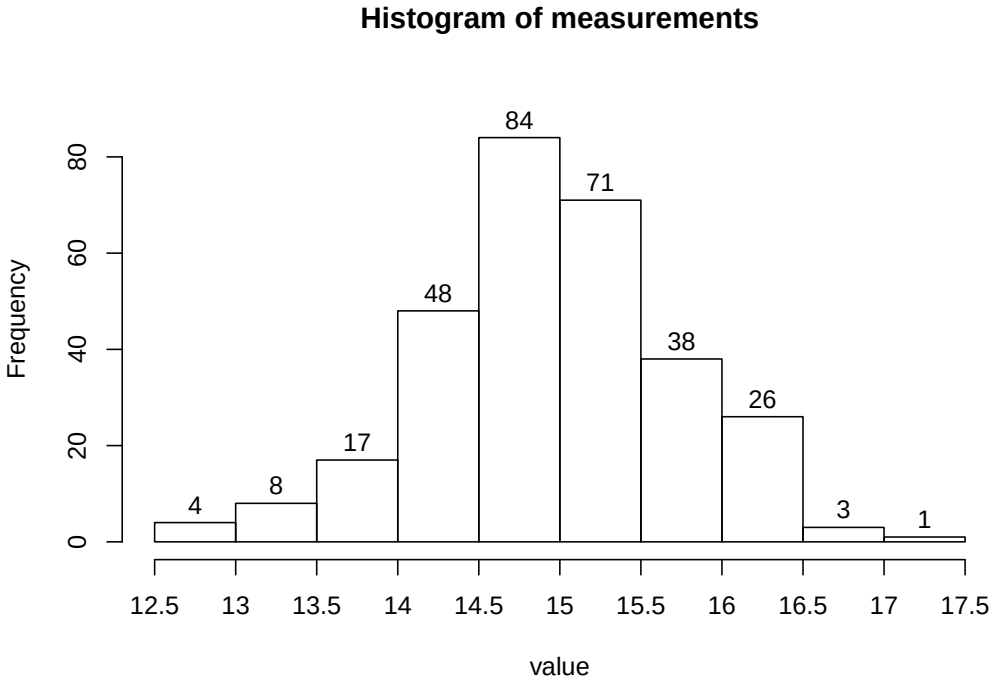
1. **Problem**
   A continuous random variable was measured 300 times. The histogram is shown below.

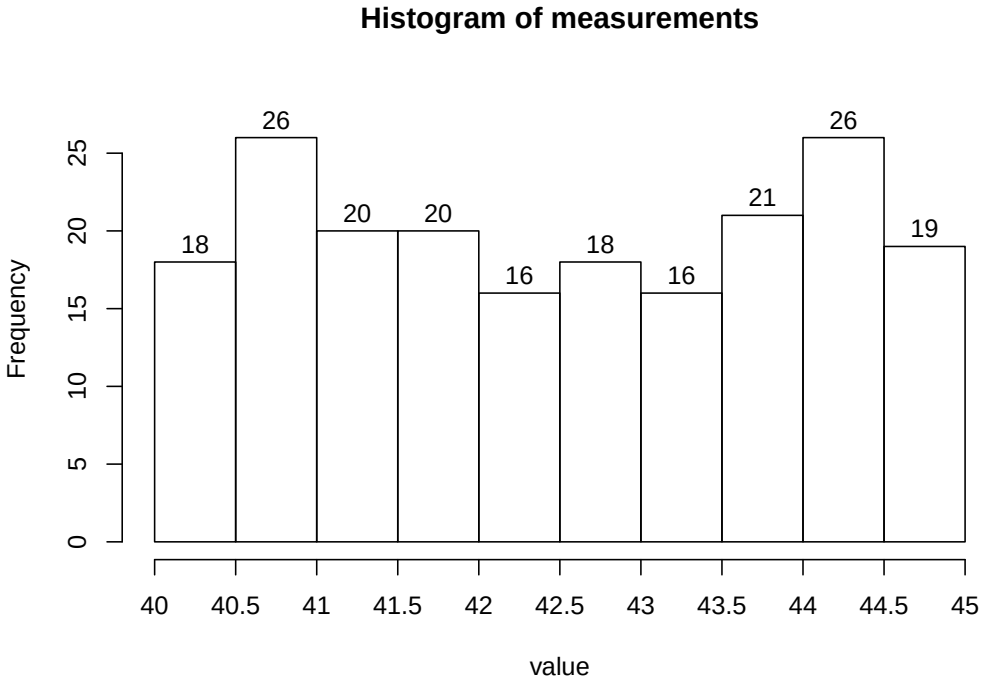


   (a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
   (b) Estimate the range of the distribution (range = max-min).
   (c) What percent of the measurements are less than 13.5?
   (d) What percent of the measurements are less than 12.5?
   (e) Of the measurements less than 13.5, what percent are less than 12.5?
   (f) Estimate the value of the 53.67th percentile.

Solution

   (a) symmetric mound
   (b) 5
   (c) 4%
   (d) 1.333%
   (e) 33.33%
   (f) 15

2. **Problem**
A continuous random variable was measured 200 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 43.5?

(d) What percent of the measurements are less than 41?

(e) Of the measurements less than 43.5, what percent are less than 41?

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

Solution

(a) uniform

(b) 5

(c) 67%

(d) 22%

(e) 32.84%

(f) 43