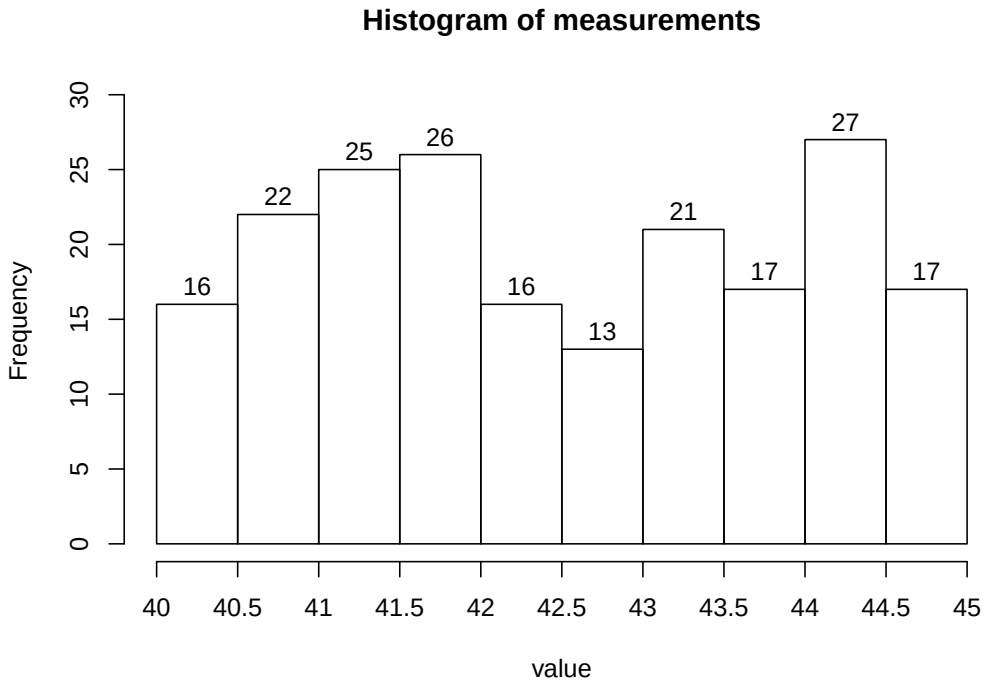
1. **Problem**
   A continuous random variable was measured 200 times. The histogram is shown below.

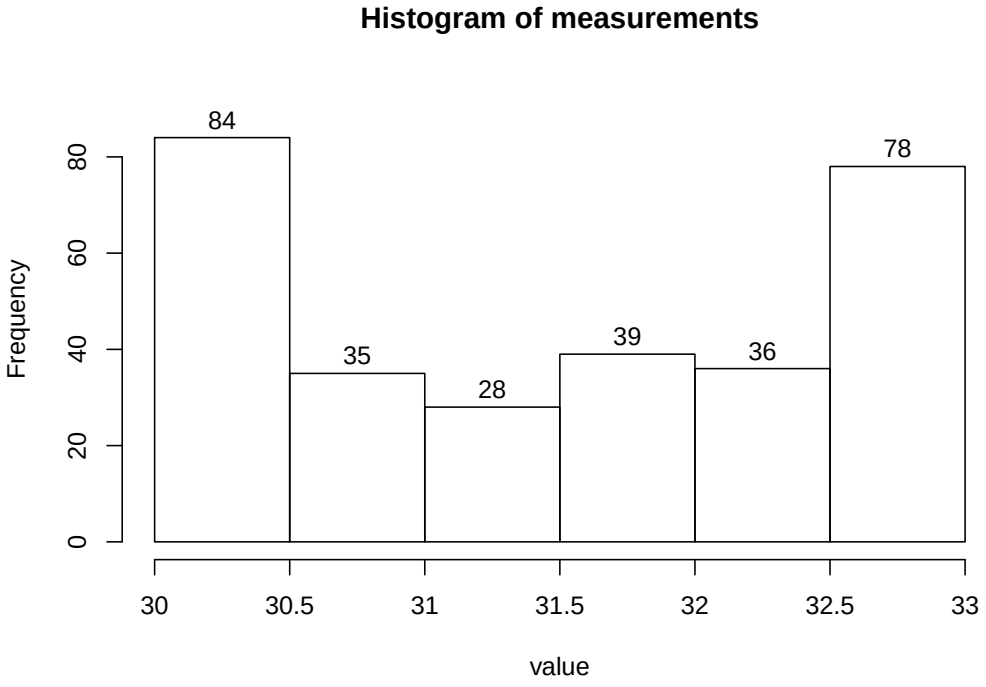


   (a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
   (b) Estimate the range of the distribution (range = max-min).
   (c) What percent of the measurements are greater than 42?
   (d) What percent of the measurements are less than 43?
   (e) Of the measurements greater than 42, what percent are less than 43?
   (f) Estimate the value of the 31.5th percentile.

Solution

   (a) uniform
   (b) 5
   (c) 55.5%
   (d) 59%
   (e) 26.13%
   (f) 41.5

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 31.5?

(d) What percent of the measurements are less than 32.5?

(e) Of the measurements greater than 31.5, what percent are less than 32.5?

(f) Estimate the value of the 39.67th percentile.

Solution

(a) bimodal

(b) 3

(c) 51%

(d) 74%

(e) 49.02%

(f) 31