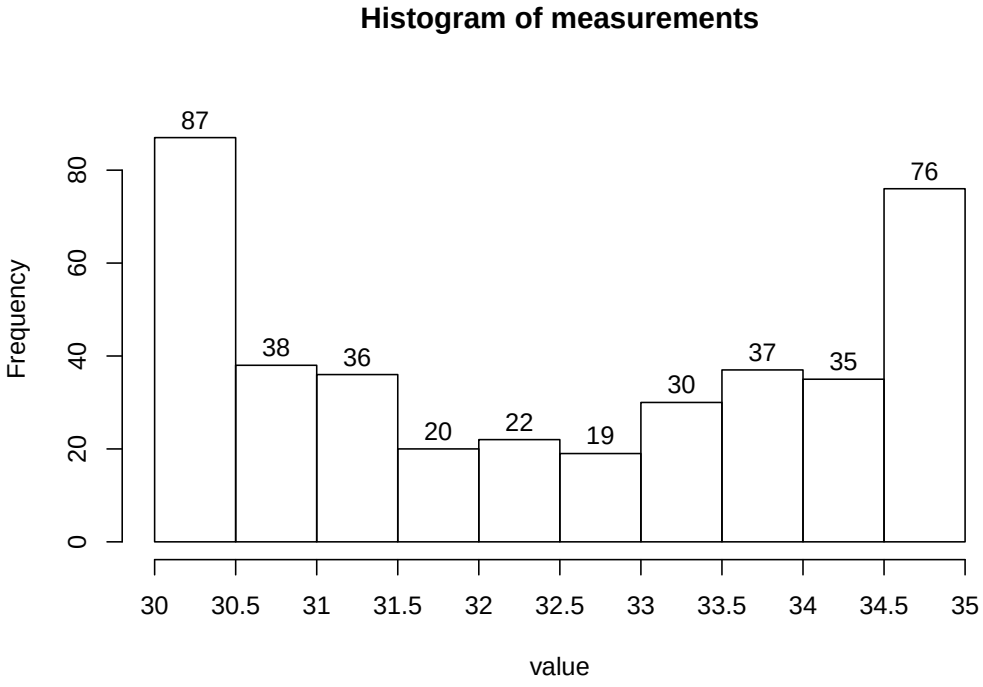
1. **Problem**
   A continuous random variable was measured 400 times. The histogram is shown below.

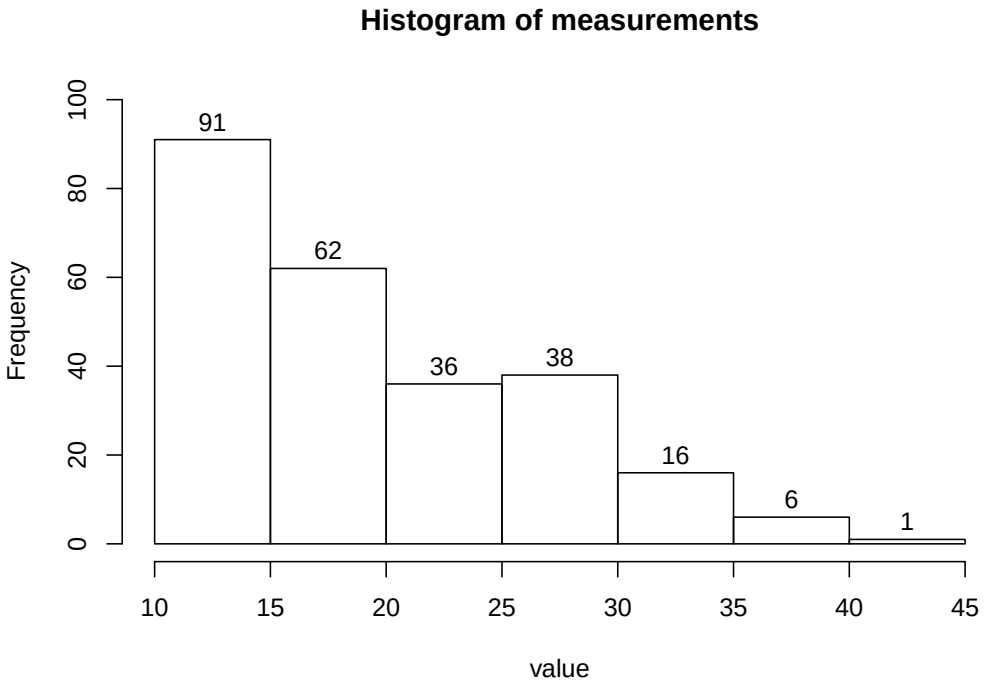


   (a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
   (b) Estimate the range of the distribution (range = max-min).
   (c) What percent of the measurements are greater than 31?
   (d) What percent of the measurements are greater than 33.5?
   (e) Of the measurements greater than 31, what percent are greater than 33.5?
   (f) Estimate the value of the 40.25th percentile.

Solution

   (a) bimodal
   (b) 5
   (c) 68.75%
   (d) 37%
   (e) 53.82%
   (f) 31.5

2. **Problem**
A continuous random variable was measured 250 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 20?

(d) What percent of the measurements are greater than 35?

(e) Of the measurements greater than 20, what percent are greater than 35?

(f) Estimate the value of the 36.4th percentile.

Solution

(a) skew right

(b) 35

(c) 38.8%

(d) 2.8%

(e) 7.216%

(f) 15