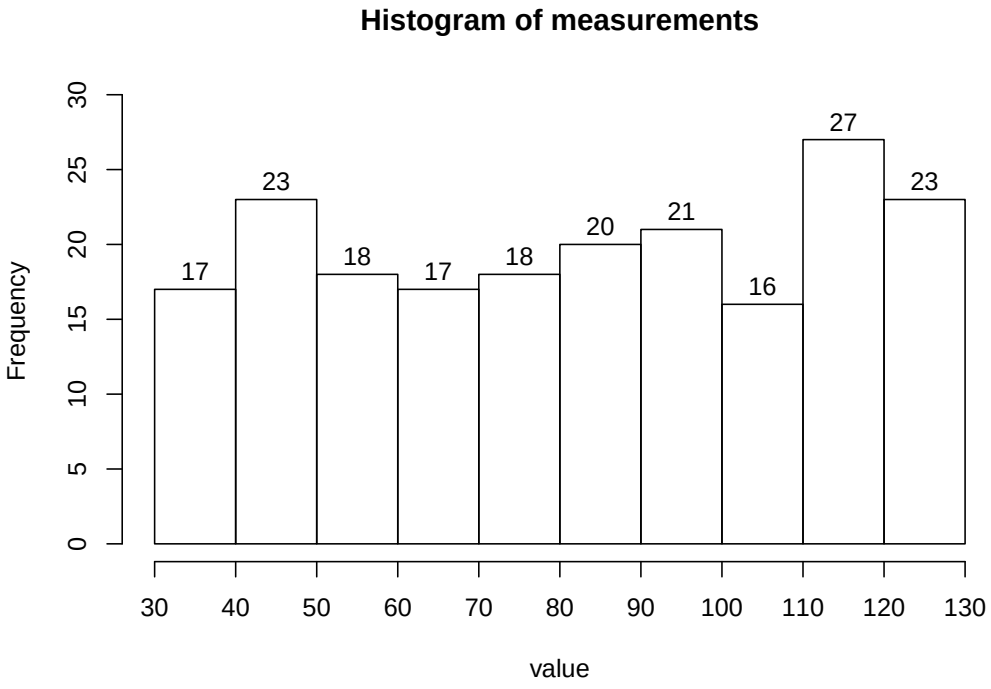
1. **Problem**
   A continuous random variable was measured 200 times. The histogram is shown below.

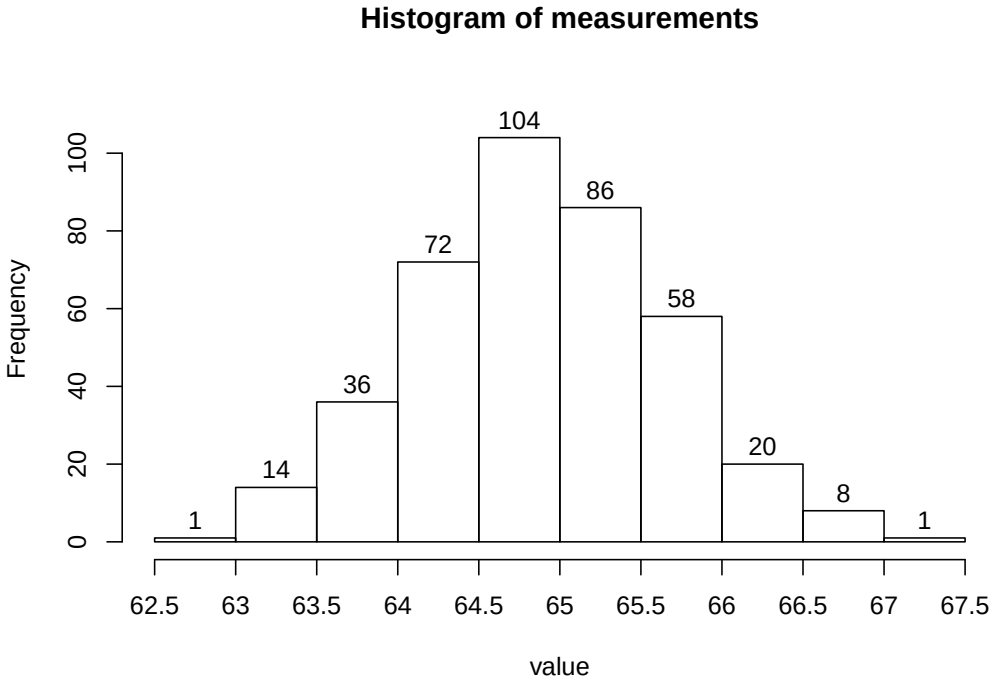


   (a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
   (b) Estimate the range of the distribution (range = max-min).
   (c) What percent of the measurements are less than 60?
   (d) What percent of the measurements are greater than 40?
   (e) Of the measurements less than 60, what percent are greater than 40?
   (f) Estimate the value of the 20th percentile.

Solution

   (a) uniform
   (b) 100
   (c) 29%
   (d) 91.5%
   (e) 70.69%
   (f) 50

2. **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 66?

(d) What percent of the measurements are greater than 66.5?

(e) Of the measurements greater than 66, what percent are greater than 66.5?

(f) Estimate the value of the 0.25th percentile.

Solution

(a) symmetric mound

(b) 5

(c) 7.25%

(d) 2.25%

(e) 31.03%

(f) 63