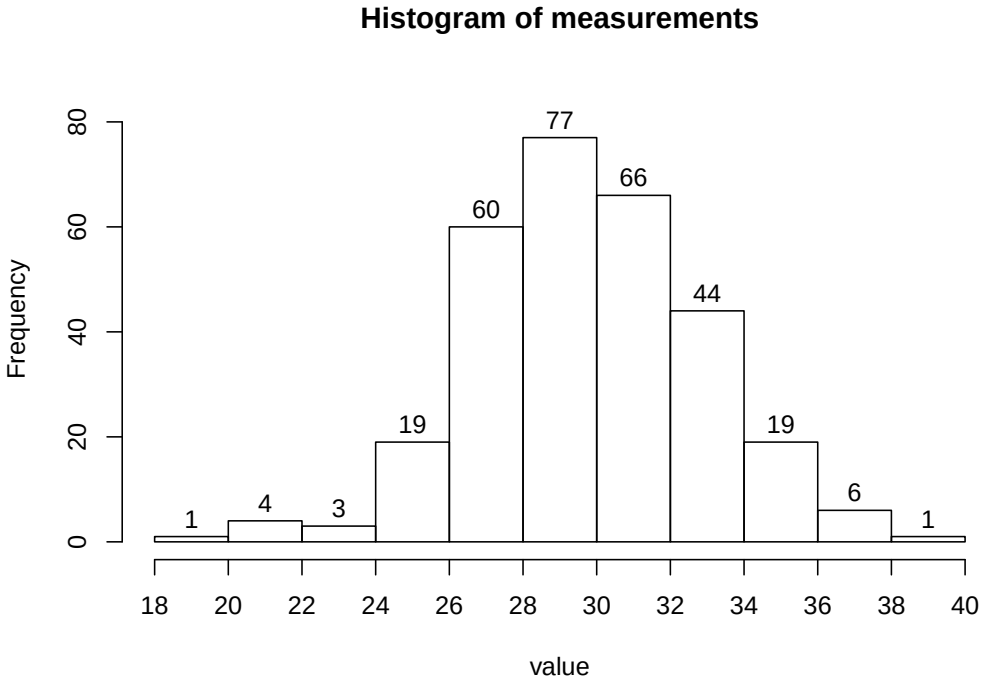
1. **Problem**
   A continuous random variable was measured 300 times. The histogram is shown below.

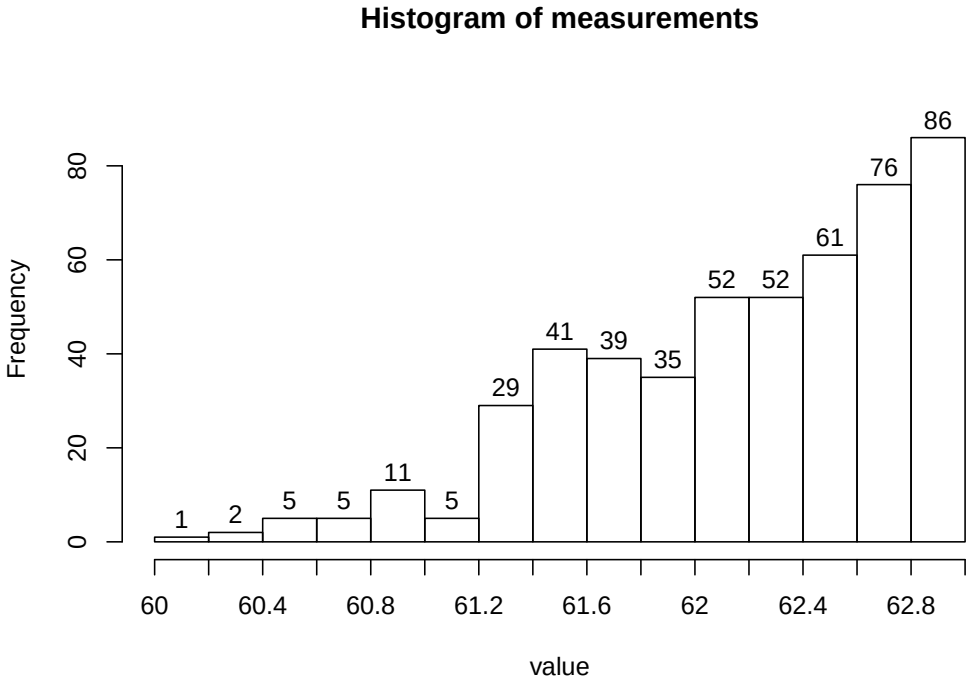


   (a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
   (b) Estimate the range of the distribution (range = max-min).
   (c) What percent of the measurements are greater than 22?
   (d) What percent of the measurements are greater than 38?
   (e) Of the measurements greater than 22, what percent are greater than 38?
   (f) Estimate the value of the 29th percentile.

Solution

   (a) symmetric mound
   (b) 22
   (c) 98.33%
   (d) 0.3333%
   (e) 0.339%
   (f) 28

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 60.6?

(d) What percent of the measurements are less than 62.2?

(e) Of the measurements greater than 60.6, what percent are less than 62.2?

(f) Estimate the value of the 34.6th percentile.

Solution

(a) skew left

(b) 3

(c) 98.4%

(d) 45%

(e) 44.11%

(f) 62