1. **Problem**
   A continuous random variable was measured 500 times. The histogram is shown below.
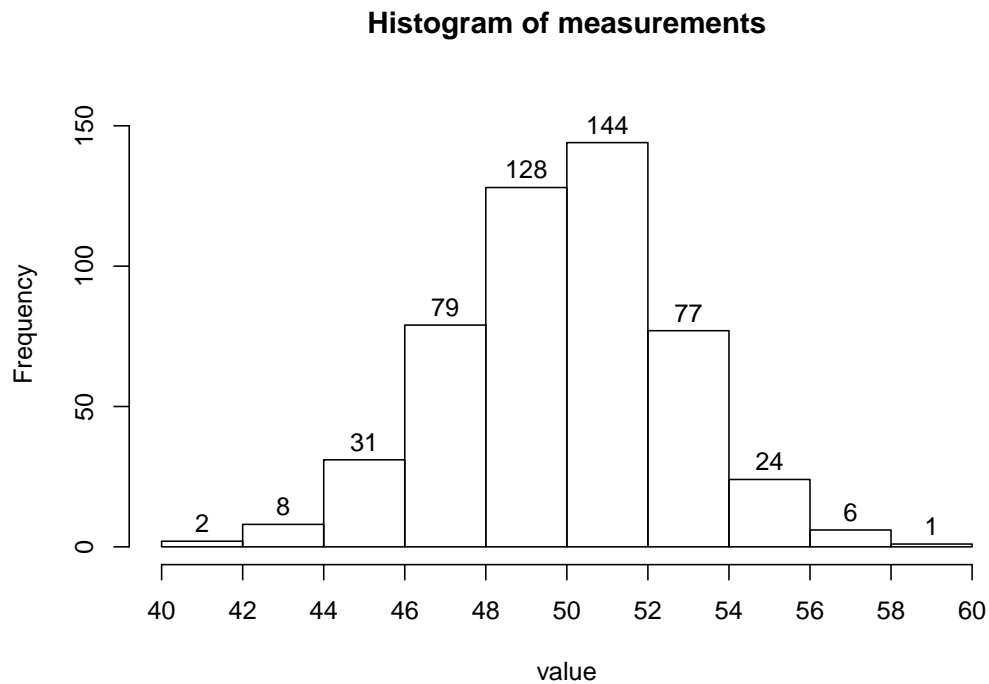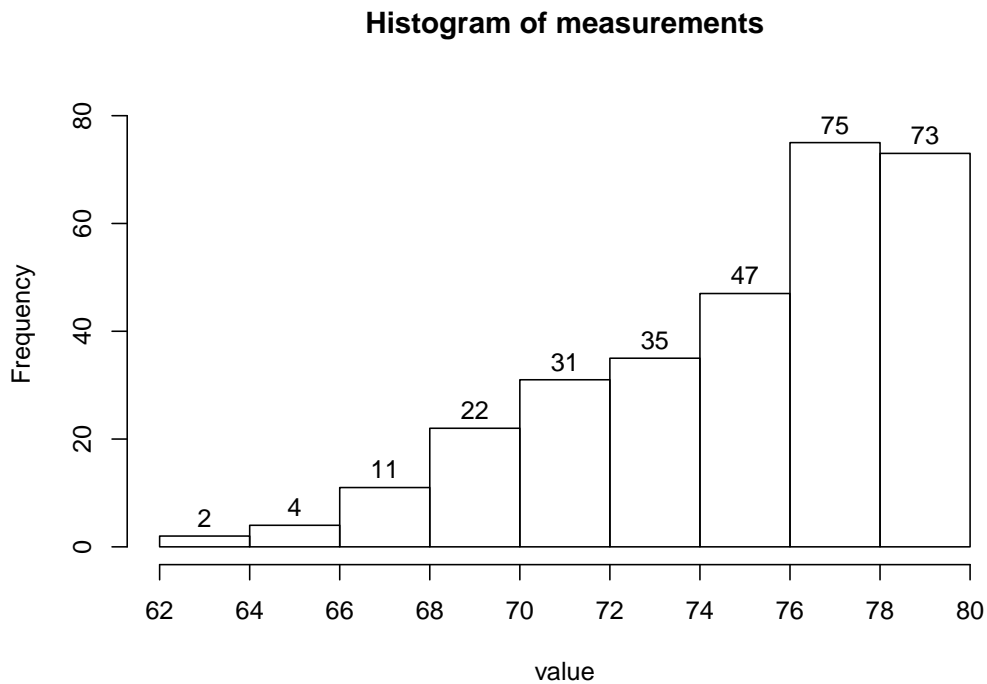
Histogram of measurements

(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 46?

(d) What percent of the measurements are less than 50?

(e) Of the measurements greater than 46, what percent are less than 50?

(f) Estimate the value of the 93.8th percentile.

Solution

(a) symmetric mound

(b) 20

(c) 91.8%

(d) 49.6%

(e) 45.1%

(f) 54

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

Histogram of measurements

(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 70?

(d) What percent of the measurements are less than 78?

(e) Of the measurements greater than 70, what percent are less than 78?

(f) Estimate the value of the 5.667th percentile.

Solution

(a) skew left

(b) 18

(c) 87%

(d) 75.67%

(e) 72.03%

(f) 68