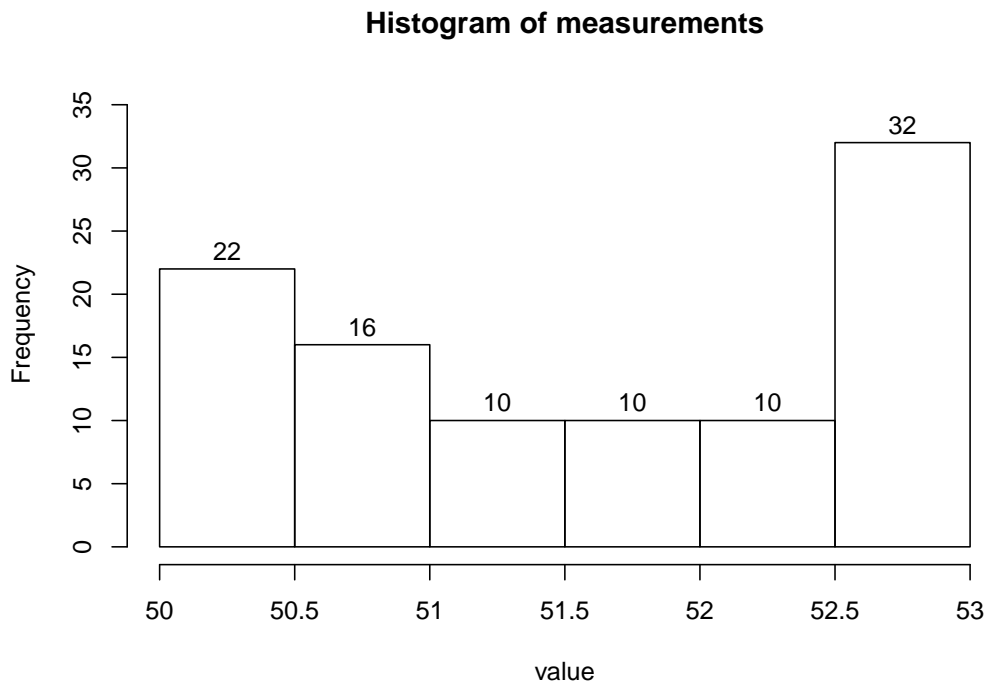


**1. Problem**

A continuous random variable was measured 100 times. The histogram is shown below.



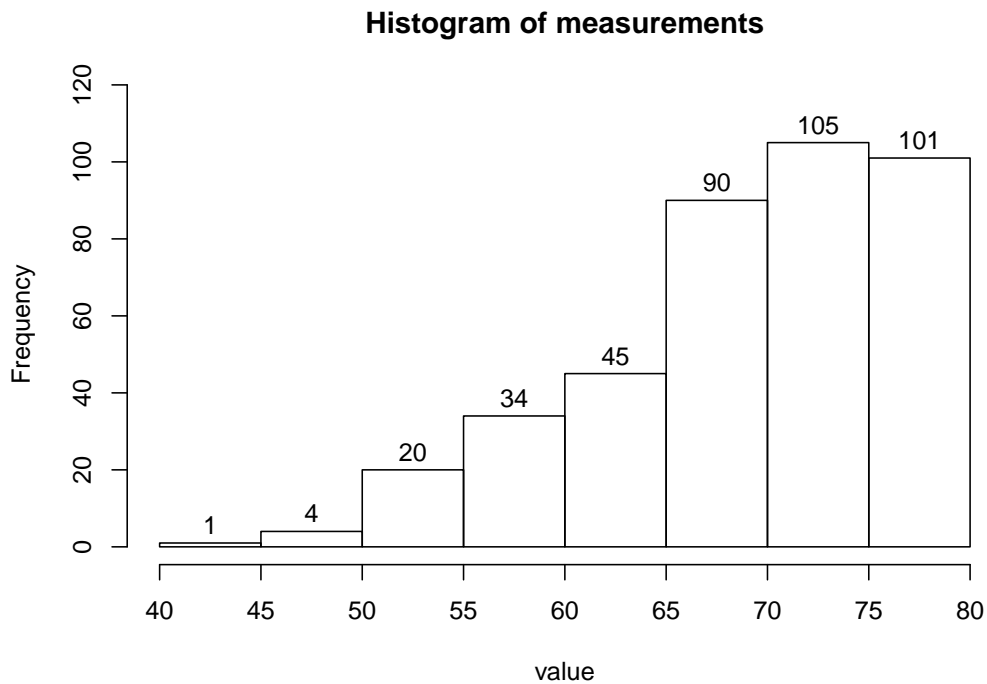
- (a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
- (b) Estimate the range of the distribution (range = max-min).
- (c) What percent of the measurements are greater than 51?
- (d) What percent of the measurements are greater than 51.5?
- (e) Of the measurements greater than 51, what percent are greater than 51.5?
- (f) Estimate the value of the 58th percentile.

**Solution**

- (a) bimodal
- (b) 3
- (c) 62%
- (d) 52%
- (e) 83.87%
- (f) 52

**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 65?
- (d) What percent of the measurements are greater than 75?
- (e) Of the measurements greater than 65, what percent are greater than 75?
- (f) Estimate the value of the 14.75th percentile.

**Solution**

- (a) skew left
- (b) 40
- (c) 74%
- (d) 25.25%
- (e) 34.12%
- (f) 60