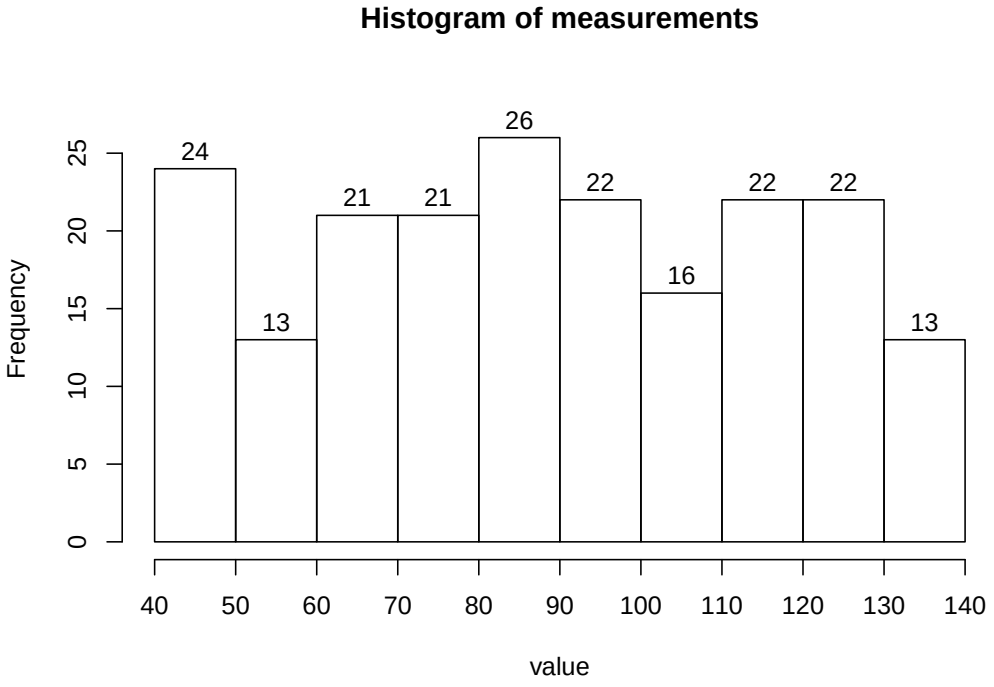
1. **Problem**
   A continuous random variable was measured 200 times. The histogram is shown below.

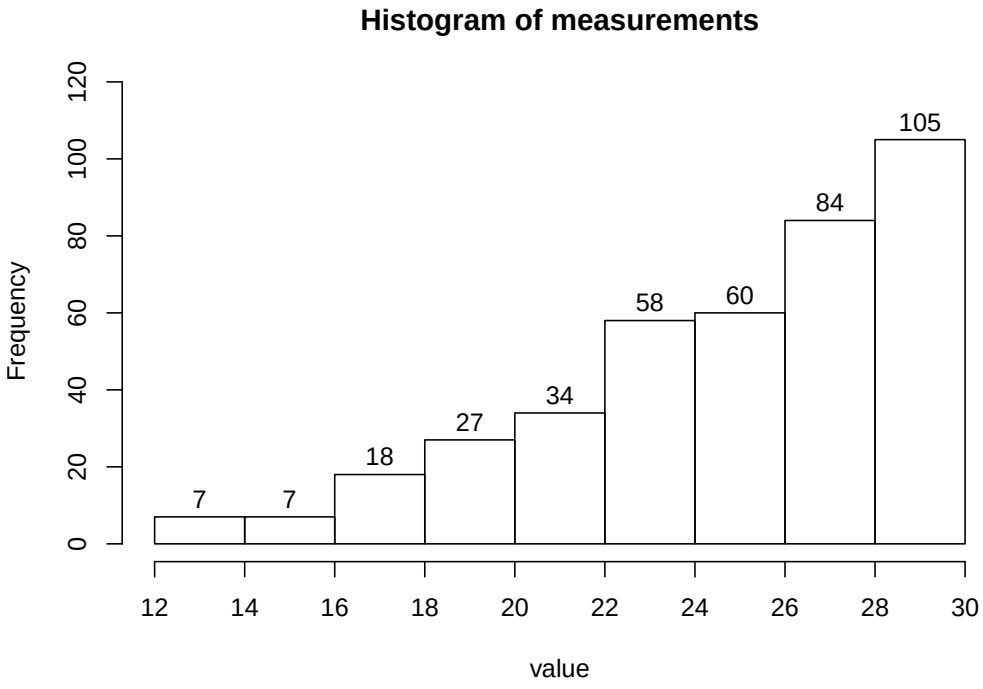


   (a) Describe the overall shape of the distribution. (symmetric mound, skew left, skew right, uniform, or bimodal)
   (b) Estimate the range of the distribution (range = max-min).
   (c) What percent of the measurements are greater than 110?
   (d) What percent of the measurements are greater than 130?
   (e) Of the measurements greater than 110, what percent are greater than 130?
   (f) Estimate the value of the 39.5th percentile.

Solution

   (a) uniform
   (b) 100
   (c) 28.5%
   (d) 6.5%
   (e) 22.81%
   (f) 80

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 less than 22?

(d) What percent of the measurements are less than 16?

(e) Of the measurements less than 22, what percent are less than 16?

(f) Estimate the value of the 8th percentile.

Solution

(a) skew left

(b) 18

(c) 23.25%

(d) 3.5%

(e) 15.05%

(f) 18