

1) Determine the mean, median, and mode for each data set (round to one decimal place).

a) {2, 3, 5, 5, 7, 7, 7, 8, 9, 10}

$\bar{x} = 6.3$

med = 7

mode = 7

b) {8, 7, 5, 6, 3, 2, 9, 8}

$\bar{x} = 6$

med = 6.5

mode = 8

c) {210, 180, 188, 162, 170}

$\bar{x} = 182$

med = 180

mode = none

d) {4.5, 20.7, 35.2, 28.8, 36.5, 40.5}

$\bar{x} = 27.7$

med = 32

mode = none

e) {5.3, 8.4, 5.3, 9.2, 10.6, 9.2}

$\bar{x} = 8$

med = 8.8

mode = 5.3, 9.2

f) {2150, 1860, 2340, 1990}

$\bar{x} = 2085$

med = 2090

mode = none

2) Invent a data set that matches each description.

a) Five values, mean=15, median=13, no mode.

11, 12, 13, 19, 20

b) Six values, mean=24, median=25, mode=28

15, 23, 24, 26, 28, 28

3) Suppose you have a data set containing 1000 test scores. How many scores would you expect to find matching each description?

a) Above the median

500

b) Below the first quartile

250

c) Between the first and third quartiles

500

d) Above the third quartile

250

e) Below the third quartile

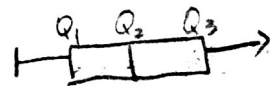
750

f) Above the first quartile

750

g) Between the median and the third quartile

250

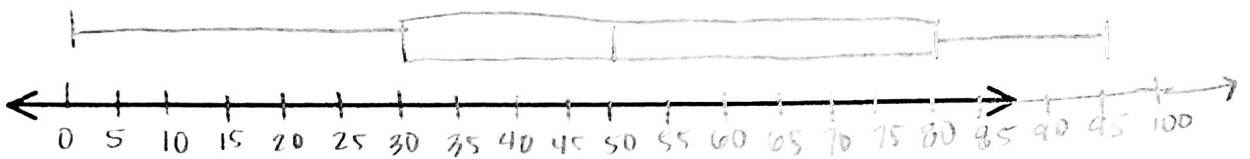


4) Give the five-number summary for each data set. And draw a box-and-whisker plot for each.

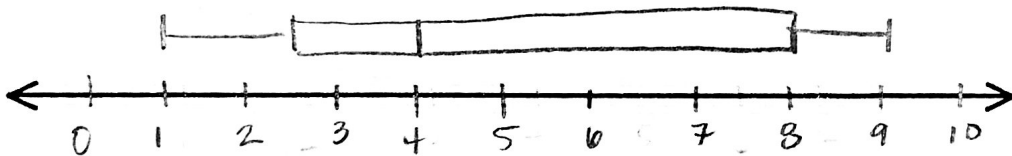
a) {10, 8, 6, 4, 2} min: 2  $Q_1$ : 3 med: 6  $Q_3$ : 9 max: 10



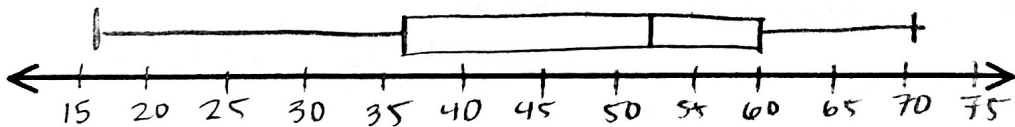
b) {0, 30, 45, 50, 75, 80, 95} min: 0  $Q_1$ : 30 med: 50  $Q_3$ : 80 max: 95



c) {8, 6, 8, 2, 9, 4, 4, 3, 1} min: 1  $Q_1$ : 2.5 med: 4  $Q_3$ : 8 max: 9

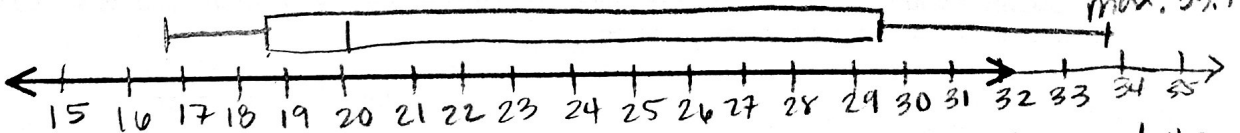


d) {32, 55, 16, 70, 65, 55, 40, 49} min: 16  $Q_1$ : 30 med: 52  $Q_3$ : 60 max: 70



e) {19.3, 32.4, 20.5, 18.0, 26.6, 21.4, 16.7, 33.9} min: 16.7  $Q_1$ : 18.65 med: 20.95

$Q_3$ : 29.5  
max: 33.9



f) {0.52, 3.91, 4.67, 2.20, 8.15, 5.91, 7.94, 1.11, 6.55, 4.03} min: 0.52  $Q_1$ : 2.2 med: 4.32

$Q_3$ : 6.55  
max: 8.15

