**HW 2 Solutions**

2.1: (a) 4 (b) state (c) 50

2.6: (a) statistic (b) parameter (c) statistic

2.18: (a) explanatory – amount of walking/running, response – lung function (b) explanatory – age, response – importance of religion

2.30: (a) 1700/2470 = 69% (b) 1056/1700 = 62% (c) 300/657 = 46% (d) 41/113 = 36% (e) summarize what (b)-(d) tell us: that there seems to be a relationship such that as the student’s general grades get better, they become more likely to always wear a seatbelt.

2.38: (a) male median = 110, female median = 89 🡺 males tend to drive faster (b) male IQR = 25, female IQR =15 🡺 spread larger for males

2.42: (a) skewed to the right (b) the value 13 seems to be an outlier, as it is separated from the bulk of the data (c) 2 is reported most often, by about 44 women (d) ~30

2.62: (a) 12 (b) 13 (c) the box for males is much longer than that for females (d)=(e)= 23-6=17

2.74: (a) mean = 2.45, median = -7 (b) the median seems a better measure, as it indicates that the average game was lost by 7 points, whereas the mean indicates the average game was won by 2.45 points. Since they lost far more than they won, the median seems to better capture this.