2.6: (a) and (b) A back to back stemplot is provided. The five-number summaries are tabulated. (c) It seems that the offensive line players are heavier. Perhaps there is one outlier—one 325-pound defensive lineman.

Min Q1 Median Q3 Max

Offensive line 304 309.5 319 331.5 344 pounds

Defensive line 280 285 300 305 325 pounds

|  |  |  |
| --- | --- | --- |
| Offensive Line |  | Defensive Line |
| 4 4  9 8 5  5 4  8  4 | 28  29  30  31  32  33  34 | 0 5  8  0 5 5  5 |

2.11: Both data sets have the same mean and standard deviation (about 7.5 and 2.0, respectively). However, construct simple stemplots to reveal that Data A have a very left-skewed distribution, while Data B have a slightly right-skewed distribution.

2.28: (a) Minimum = 23040, Q1 = 31975, Median = 31975, Q3 = 32710, Maximum = 33650. (b) Notice that the Minimum is much farther from Q1 than the Maximum is from Q3. This suggests a long left tail, consistent with a left-skewed distribution.

2.33: (a) Symmetric distributions. (b) Removing the outliers reduces both means and both standard deviations.

STEM PLOT FROM 1.38: USE TO ANSWER 2.33

Both distributions are somewhat right-skewed. The women’s distribution is shifted a bit to the right of the men, suggesting that they tend to study a bit more. One woman claimed to study 360 minutes (6 hours) per night.

|  |  |  |
| --- | --- | --- |
| **Women** |  | **Men** |
|  | 0 | 03334 |
| 986 | 0 | 66679999 |
| 22222221 | 1 | 222222 |
| 88888888755555 | 1 | 5558 |
| 4440 | 2 | 44300 |
| 7 | 2 |  |
|  | 3 | 0 |
| 6 | 3 |  |