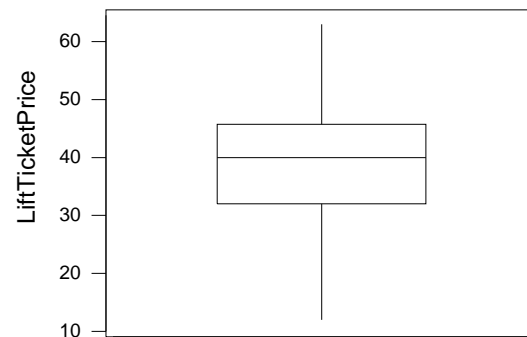


Practice Quiz 2

Statistics 1000

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1. (7 pts.) This boxplot shows prices for adult weekend ski lift tickets in various resorts in the Middle Atlantic States for the winter of 2004.



- (a) The shape is (i) noticeably skewed to the left (ii) approximately symmetric (iii) noticeably skewed to the right
- (b) Which of these is your best guess for the interquartile range ($IQR = Q3 - Q1$)? (i) 15 (ii) 25 (iii) 35 (iv) 50
- (c) Suppose price is included for a new resort that only charges \$10 for a lift ticket. How would this affect the mean? (No calculations necessary.) (i) decrease it (ii) no effect (iii) increase it
- (d) Suppose price is included for a new resort that only charges \$10 for a lift ticket. How would this affect the standard deviation? (No calculations necessary.) (i) decrease it (ii) no effect (iii) increase it
- (e) Tell how we denote the mean _____ and standard deviation _____ if the values only constitute a sample, and how we denote mean _____ and standard deviation _____ if the values are for all Middle Atlantic ski resorts.

2. (3 pts.) In a sample of resumes, 7 percent of applicants described themselves as being a “team player”.
- (a) The unknown proportion of *all* resumes that describe applicants as team players is (i) a statistic denoted p (ii) a statistic denoted \hat{p} (iii) a parameter denoted p (iv) a parameter denoted \hat{p}
 - (b) Which of these would help to convince you that the proportion for all resumes is close to .07:
 - i. A very large representative sample was used.
 - ii. The sample included only resumes applying for management positions.
 - iii. Both (i) and (ii).
 - iv. Neither (i) nor (ii).
 - (c) The study also considered what percentage of applicants claimed to have “communication skills”. Explain why a single piechart is not enough to display percentages with regards to being a team player and having communication skills.