1. The following table gives the Value (in millions of dollars) of the 10 most Valued baseball teams as estimated by Forbes in 2007

|  |  |  |
| --- | --- | --- |
| Rank | Team | Value |
| 1 | New York Yankees | 1306 |
| 2 | New York Mets | 824 |
| 3 | Boston Red Sox | 816 |
| 4 | Los Angeles Dodgers | 694 |
| 5 | Chicago Cubs | 642 |
| 6 | Los Angeles Angels of Anaheim | 500 |
| 7 | Atlanta Braves | 497 |
| 8 | San Francisco Giants | 494 |
| 9 | St Louis Cardinals | 484 |
| 10 | Philadelphia Phillies | 481 |

A) Find the Mean

B) Find the Median

C) What might account for the difference between these Values?

2. The Quaker company conducted a survey to determine whether a proposed premium, to be included with purchase of the firms’ cereal was appealing enough to generate new sales. Four cities were used as test markets where the cereal was distributed with the premium. And four cities were used as control markets, where the cereal was distributed without the premium. The eight cities were chosen on the basis of their similarity in terms of population, per capita income, and total cereal purchase volume. The results were as follows. On the basis of the results of this exercise, the company decided to mass produce the premium and distribute it nationally

|  |  |  |
| --- | --- | --- |
|  |  | %Change in Average Market shares per Month |
| Test Cities | 1  2  3  4 | +18  +15  +7  +10 |
| Control Cities | 1  2  3  4 | +1  -8  -5  0 |

1. Find the Mean of the change in the Market share for the four test cities
2. Find the Mean of the change in the market share for the four Control cities
3. Find the standard deviation of the change in the Market share for the Test cities
4. Find the standard deviation of the change in the Market share for the Control cities
5. Find the difference between the mean of part (a) and the mean of part (b). This represents the estimate of the percent change in sales due to premium
6. The two standard deviation from c and d were used to calculate an error of +\_ 7.95 for the estimate in part e .With this amount of error what is the smallest and Largest estimate of the increase in sales ?(Hint : Use the answer to part e.