**SPSS Output for Problem C: Ideal Measurement Model  
  
Item 1: Case Summaries**

| **Case Summariesa** | | | |
| --- | --- | --- | --- |
|  | | ObsNum | PingTime |
| 1 | | 1 | 299 |
| 2 | | 2 | 293 |
| 3 | | 3 | 294 |
| 4 | | 4 | 302 |
| 5 | | 5 | 295 |
| 6 | | 6 | 294 |
| 7 | | 7 | 297 |
| 8 | | 8 | 296 |
| 9 | | 9 | 297 |
| 10 | | 10 | 295 |
| 11 | | 11 | 296 |
| 12 | | 12 | 296 |
| 13 | | 13 | 300 |
| 14 | | 14 | 297 |
| 15 | | 15 | 296 |
| 16 | | 16 | 300 |
| 17 | | 17 | 297 |
| 18 | | 18 | 296 |
| 19 | | 19 | 293 |
| 20 | | 20 | 301 |
| 21 | | 21 | 296 |
| 22 | | 22 | 295 |
| 23 | | 23 | 296 |
| 24 | | 24 | 296 |
| 25 | | 25 | 299 |
| 26 | | 26 | 300 |
| 27 | | 27 | 297 |
| 28 | | 28 | 316 |
| 29 | | 29 | 295 |
| 30 | | 30 | 297 |
| 31 | | 31 | 294 |
| 32 | | 32 | 300 |
| 33 | | 33 | 334 |
| 34 | | 34 | 296 |
| 35 | | 35 | 295 |
| 36 | | 36 | 303 |
| 37 | | 37 | 295 |
| 38 | | 38 | 297 |
| 39 | | 39 | 303 |
| 40 | | 40 | 295 |
| 41 | | 41 | 306 |
| 42 | | 42 | 293 |
| 43 | | 43 | 294 |
| 44 | | 44 | 294 |
| 45 | | 45 | 295 |
| 46 | | 46 | 301 |
| 47 | | 47 | 293 |
| 48 | | 48 | 295 |
| 49 | | 49 | 295 |
| 50 | | 50 | 294 |
| Total | N | 50 | 50 |
| a. Limited to first 100 cases. | | | |

**Item 2: Descriptives**

| **Descriptive Statistics** | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
|  | N | Minimum | Maximum | Mean | | Std. Deviation |
| Statistic | Statistic | Statistic | Statistic | Std. Error | Statistic |
| PingTime | 50 | 293 | 334 | 297.86 | .929 | 6.568 |
| Valid N (listwise) | 50 |  |  |  |  |  |

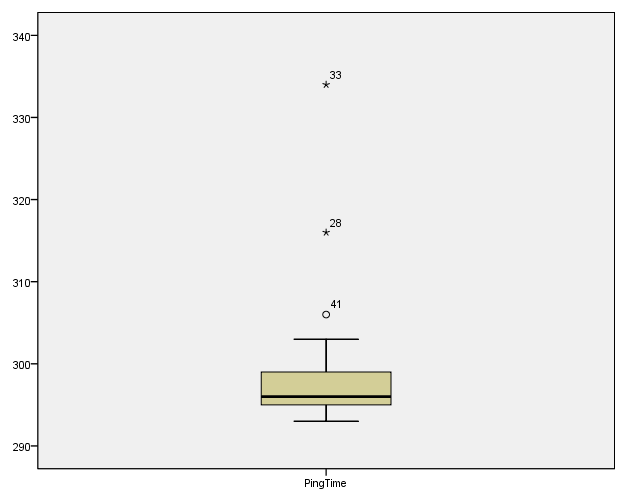
**Item 3: Explore**

| **Descriptives** | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | Statistic | | Std. Error | |
| PingTime | Mean | | | | 297.86 | | .929 | |
| 95% Confidence Interval for Mean | | Lower Bound | | 295.99 | |  | |
| Upper Bound | | 299.73 | |  | |
| 5% Trimmed Mean | | | | 296.83 | |  | |
| Median | | | | 296.00 | |  | |
| Variance | | | | 43.143 | |  | |
| Std. Deviation | | | | 6.568 | |  | |
| Minimum | | | | 293 | |  | |
| Maximum | | | | 334 | |  | |
| Range | | | | 41 | |  | |
| Interquartile Range | | | | 4 | |  | |
| Skewness | | | | 3.980 | | .337 | |
| Kurtosis | | | | 19.423 | | .662 | |
| **M-Estimators** | | | | | | | |
|  | Huber's M-Estimatora | Tukey's Biweightb | | Hampel's M-Estimatorc | | Andrews' Waved | |
| PingTime | 296.07 | 295.62 | | 295.82 | | 295.61 | |
| a. The weighting constant is 1.339. | | | | | | | |
| b. The weighting constant is 4.685. | | | | | | | |
| c. The weighting constants are 1.700, 3.400, and 8.500 | | | | | | | |
| d. The weighting constant is 1.340\*pi. | | | | | | | |

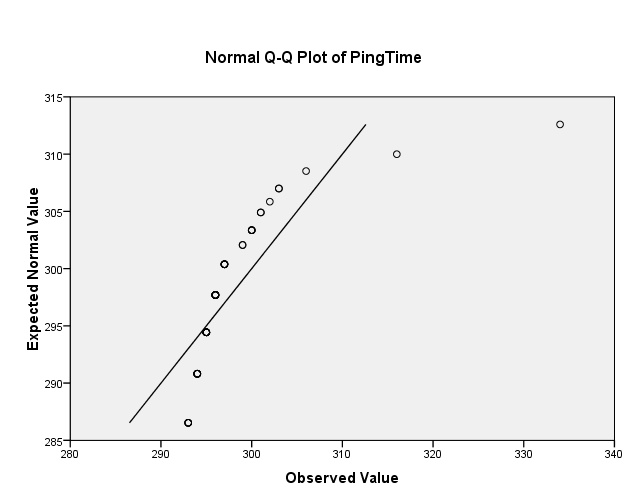
| **Percentiles** | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
|  | | Percentiles | | | | |
| 5 | 10 | 25 | 50 | 75 |
| Weighted Average(Definition 1) | PingTime | 293.00 | 294.00 | 295.00 | 296.00 | 299.25 |
| Tukey's Hinges | PingTime |  |  | 295.00 | 296.00 | 299.00 |

| **Percentiles** | | | |
| --- | --- | --- | --- |
|  | | Percentiles | |
| 90 | 95 |
| Weighted Average(Definition 1) | PingTime | 302.90 | 310.50 |
| Tukey's Hinges | PingTime |  |  |

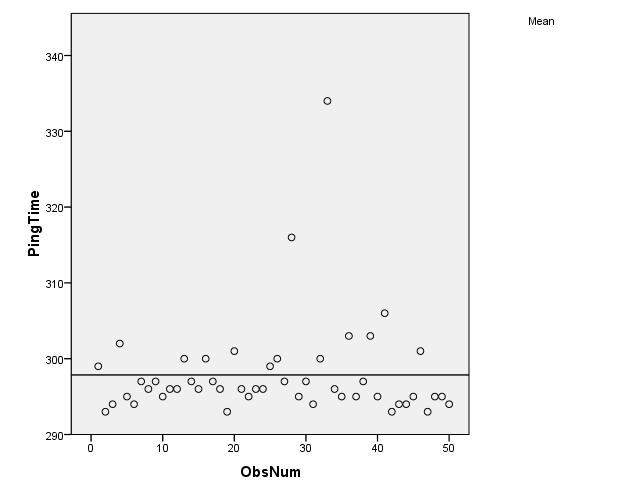
**PingTime**



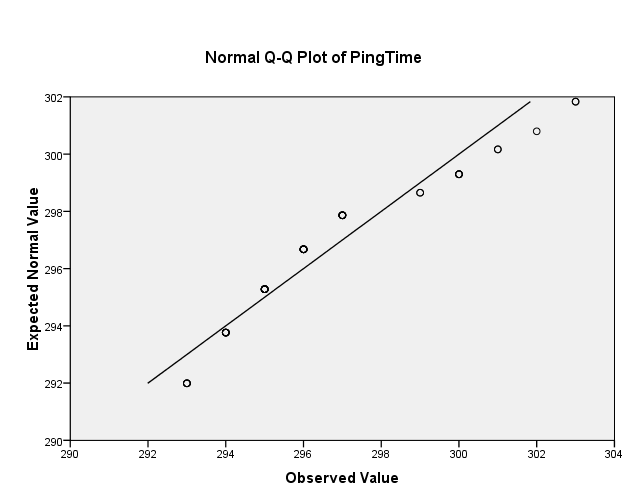
**Item 4: Normal Probablity Plot using Blom’s Method**



**Item 5: Scatterplot of PingTime vs. Observation Number**



**Item 6: Normal Probablity Plot using Blom’s Method, Outliers Removed**



**Item 7: Scatterplot of PingTime vs. Observation Number, Outliers Removed**

