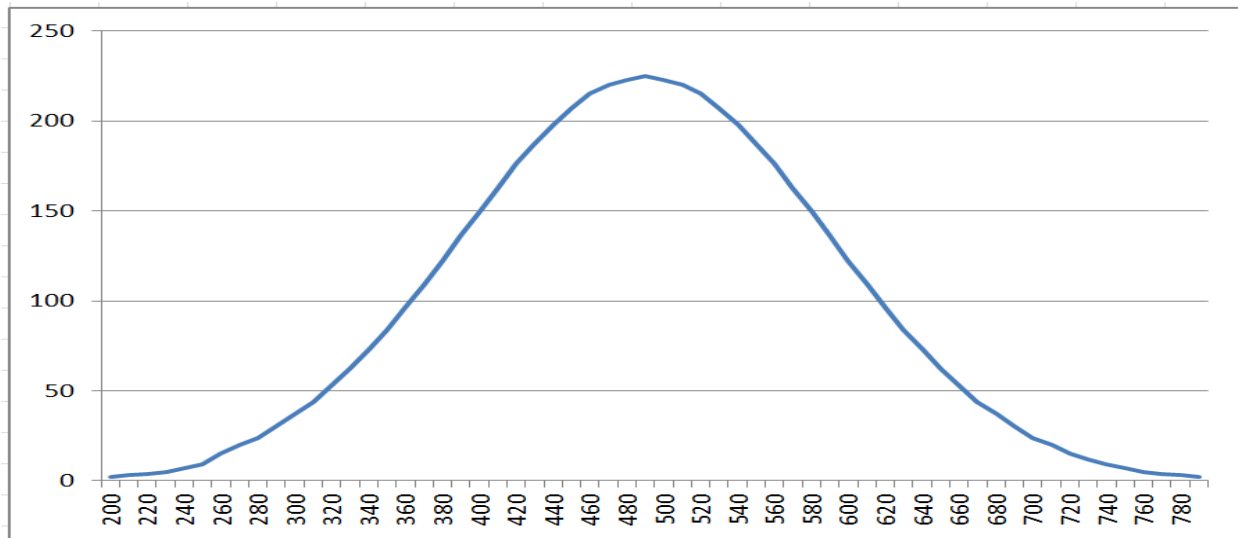


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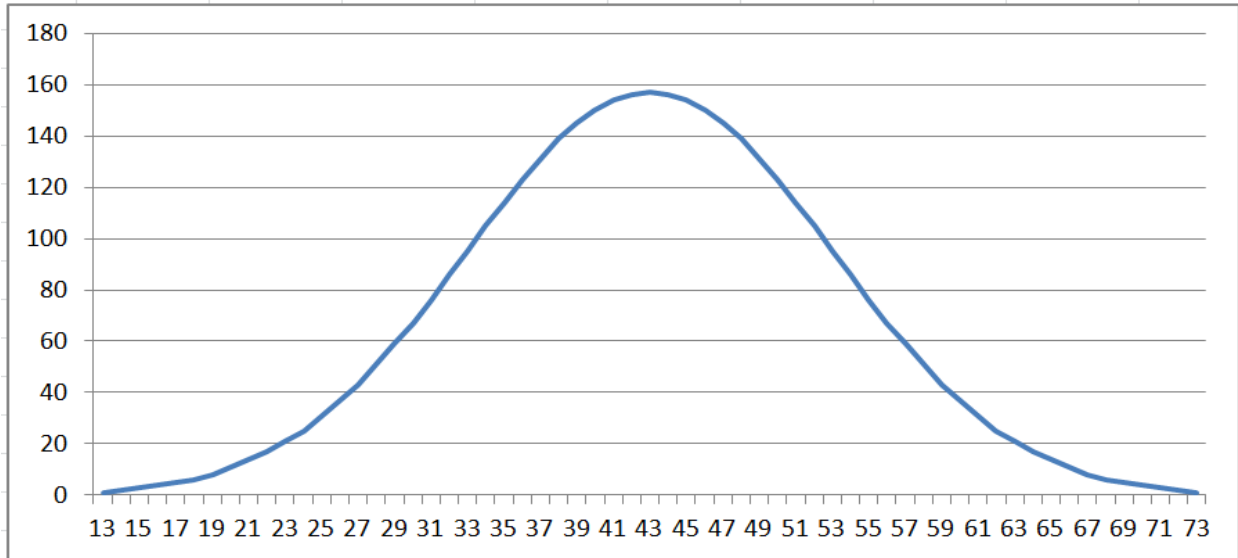
Name: _____ Date: _____

Normalization Data



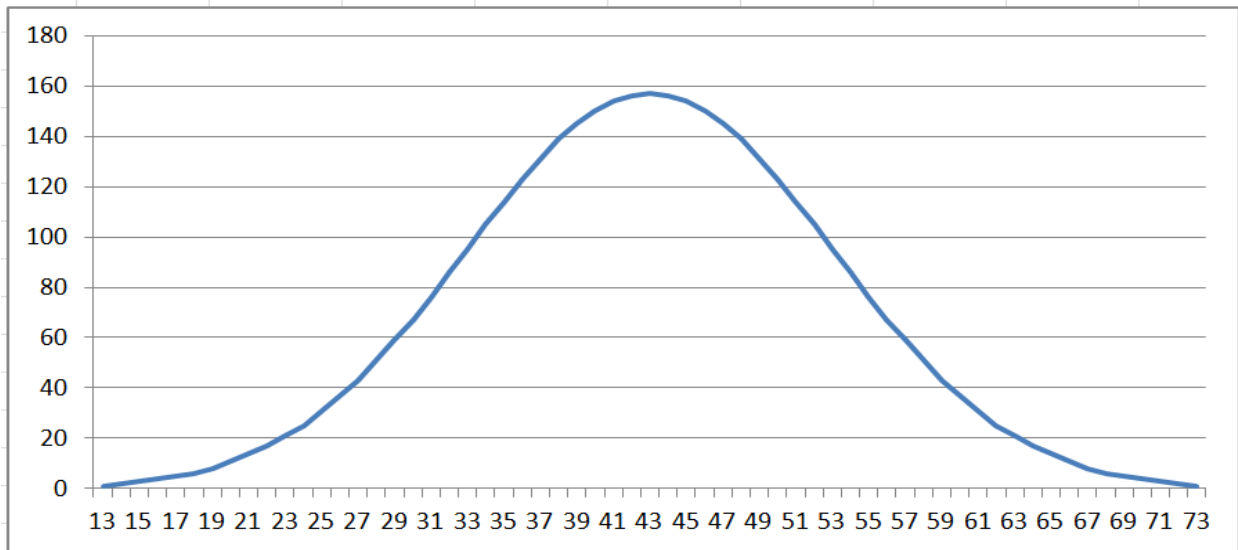
- What is the mean for this normal data curve?
a. 490 b. 200 c. 225 d. 780
- On a Normalization Curve, what can we say about the mean and the median? _____
- What is the name of the point on the curve where the standard deviation occurs? _____
- Indicate point P on the curve and what is the standard deviation for this normal data curve?
a. 120 b. 220 c. 500 d. 780
- How many data points will we need to take to see the best bell curve?
a. 1,000,000 b. 1000 c. 100 d. 10
- In the set {10,12,16,19,20,21,19,17,14,11}, the median is
a. 20.5 b. 16.5 c. 11 d. 19
- In the set {10,12,16,19,20,21,19,17,14,11}, the mean is
a. 16.5 b. 15.9 c. 17 d. 19
- In the set {10,12,16,19,20,21,19,17,14,11}, the mode is
a. none b. 15.9 c. 17 d. 19
- In the set {10,12,16,19,20,21,19,17,14,11}, the range is
a. none b. 10 to 11 c. 10 to 21 d. 10 to 17

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10. The normalization curve above has a mean of 43 and a standard deviation of 10.5005. Compute Q1 and Q3. Draw their lines and label Q1, Q2, Q3 and Q4. Label the line of symmetry.

| | |
|----------------|----------------|
| Q1 calculation | Q3 calculation |
|----------------|----------------|



11. The normalization curve above has a mean of 43 and a standard deviation of 10.5005. Compute below and show and the graph above where 95% of the data will exist using the 68 – 95 99.7 rule.

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12. Compute the mean and standard deviation for the following set.

$\{10, 12, 16, 19, 20, 21, 19, 17, 14, 11\}$

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Weighted Average

13. Stacy is taking a ten-week Science class and has the following scores in homework, lab, quizzes, and tests. In this class, the instructor weighted the homework at 15%, lab at 20%, quizzes at 30% and tests at 35%. What is Stacy's final percent in the class

| Category | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|----------|----|----|----|----|----|----|----|----|----|----|
| Homework | 76 | 81 | 82 | 79 | 83 | 85 | 86 | 82 | 81 | 85 |
| Lab | 91 | 89 | 84 | 78 | 82 | 86 | 84 | 89 | 68 | 91 |
| Quizzes | 72 | 81 | 83 | 86 | 89 | 84 | | | | |
| Tests | 87 | 89 | 92 | | | | | | | |

| | Avg | Weight | Score |
|----------|-----|--------|-------|
| Homework | | 15% | |
| Lab | | 20% | |
| Quizzes | | 30% | |
| Tests | | 35% | |
| | | Grade | |

14. Major Fred Rock is arranging for security during the soccer championship game in his city. He is preparing the risk assessment for his team. He rates each category from 1 to 5 with 5 being the most prepared. Contingency planning is weighted at 20%. Training of personnel is rated at 30%. Environmental conditions are weighted at 10%. Timing for the event is rated at 15% and the level of supervision is rated at 25%. Circle the area of security with the lowest score and is our area of the most concern.

| Category | Securing the area prior to game | Bomb detection and disposal | Quick Reaction Team | Aviation Support and Transportation |
|------------------|---------------------------------|-----------------------------|---------------------|-------------------------------------|
| Planned | 4 | 4 | 5 | 3 |
| Trained | 3 | 4 | 3 | 2 |
| Environment | 1 | 2 | 4 | 4 |
| Time to complete | 4 | 1 | 3 | 5 |
| Supervision | 5 | 4 | 4 | 2 |
| Weighted Score | | | | |