Math Virtual Learning

Probability and Statistics

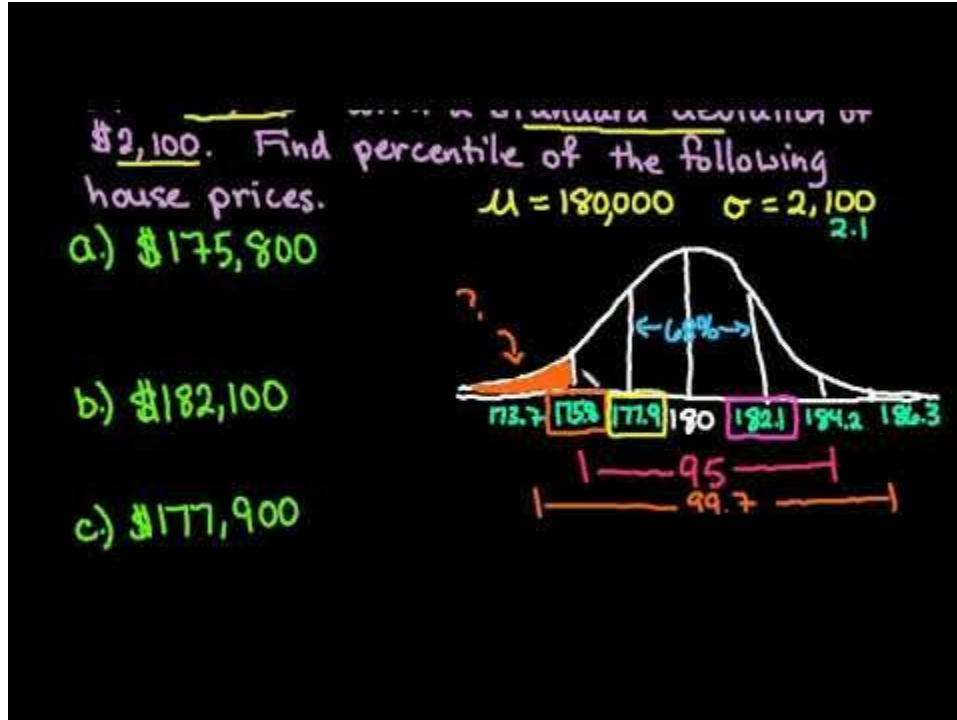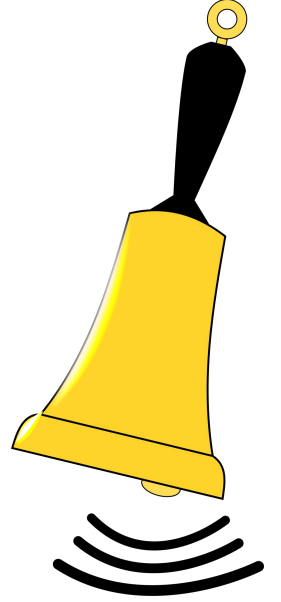**April 21, 2020**

Probability and Statistics
Lesson: April 21, 2020

Objective/Learning Target:

Students will be able to use the empirical rule to calculate the intervals of the data's distribution Day 2

Review:

Review the Empirical Rule(68-95-99.7 Rule)

Guided Practice:

It is very important that you understand the Empirical Rule before we move on to Z-Scores tomorrow so take a moment to try these guided practice problems (you can click on the hints if you get stuck)

Once you feel comfortable, move to the next slide to try some on your own.

Guided Practice 1

Guided Practice 2

Practice on your own:

Let's see what you know by doing some on your own now. (if you get stuck, watch the short video below to get back on track)
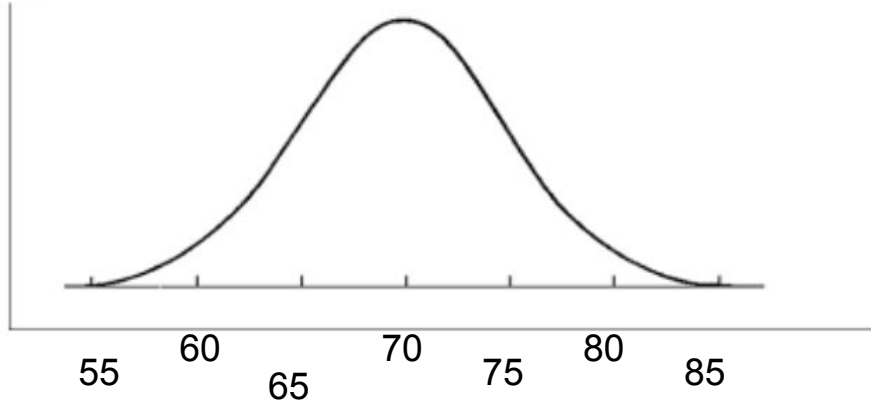
Empirical Rule
"On Your Own" Practice

"On Your Own" Demonstration

Answers:

1. 50%
2. 50%
3. 68%
4. 95%
5. 99.7%
6. 2000 freshmen at State University took a biology test. The scores were distributed normally with a mean of 70 and a standard deviation of 5. Label the mean and three standard deviations from the mean.

6.
   a. 68%
   b. 47.5%
   c. 97.35%
   d. .15%
   e. 2.5%
   f. .475 * 2000 = 950
   g. .0235 * 2000 = 47

Answers:

7. 7. 500 juniors at Central High School took the ACT last year. The scores were distributed normally with a mean of 24 and a standard deviation of 4. Label the mean and three standard deviations from the mean.
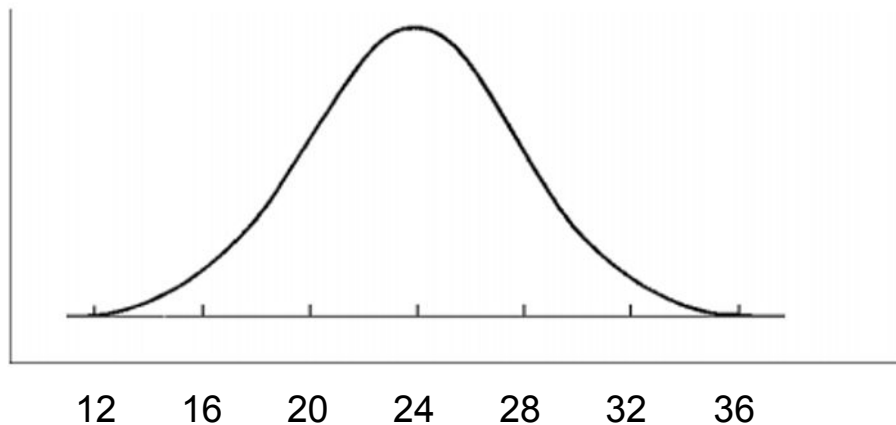

| 12 | 16 | 20 | 24 | 28 | 32 | 36 |

7.

a. 68%
b. 95%
c. 81.5%
d. .15%
e. 50%
f. .34 * 500 = 170
g. .68 * 500 = 340
h. .475 * 500 = 237.5 = 238
i. .135 * 500 = 67.5 = 68
j. .025 * 500 = 12.5 = 13