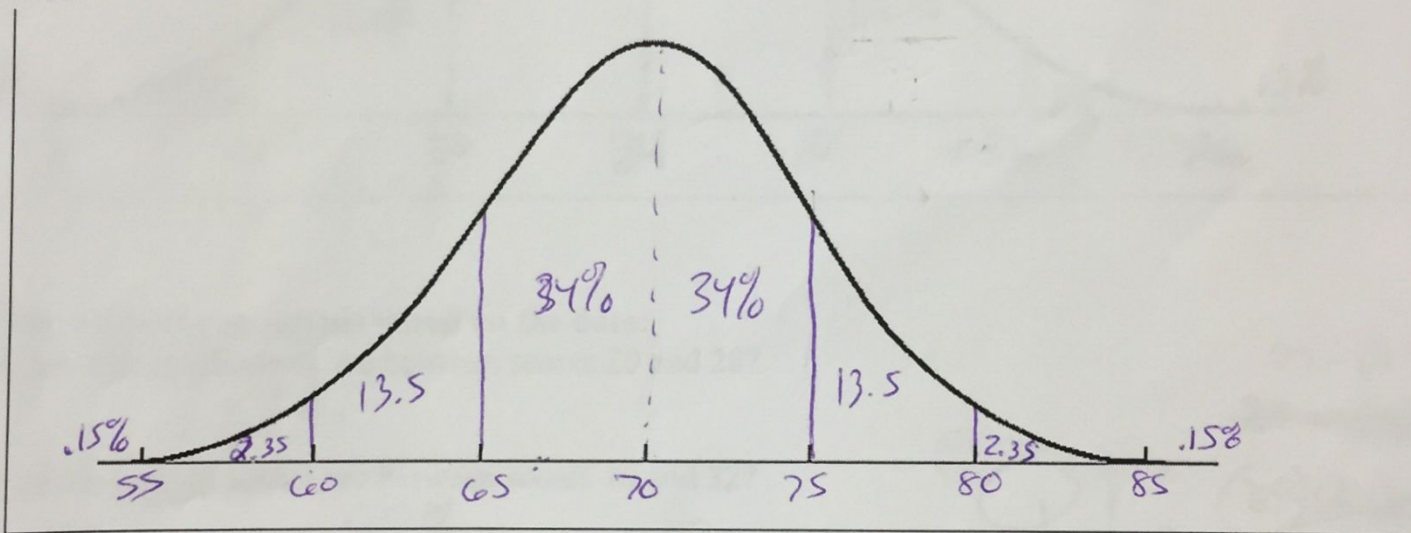


In a normal distribution, what percent of the values lie:

1. below the mean? 50%
2. above the mean? 50%
3. within one standard deviation of the mean? 68.0%
4. within two standard deviations of the mean? 95.0%
5. within three standard deviations of the mean? 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.



Answer the following questions based on the data:

- a) What percentage of scores are between scores 65 and 75?  
68%
- b) What percentage of scores are between scores 60 and 70?  
47.5%
- c) What percentage of scores are between scores 60 and 85?  
97.35%
- d) What percentage of scores is less than a score of 55?  
.15%
- e) What percentage of scores is greater than a score of 80?  
2.5%
- f) Approximately how many biology students scored between 60 and 70?  
950
- g) Approximately how many biology students scored between 55 and 60?  
47

$Q1 + Q3$   
 $5(.67) = 3.35$   
 $Q1 = 70 - 3.35$   
 $Q3 = 70 + 3.35$

~~97.35%~~ 47