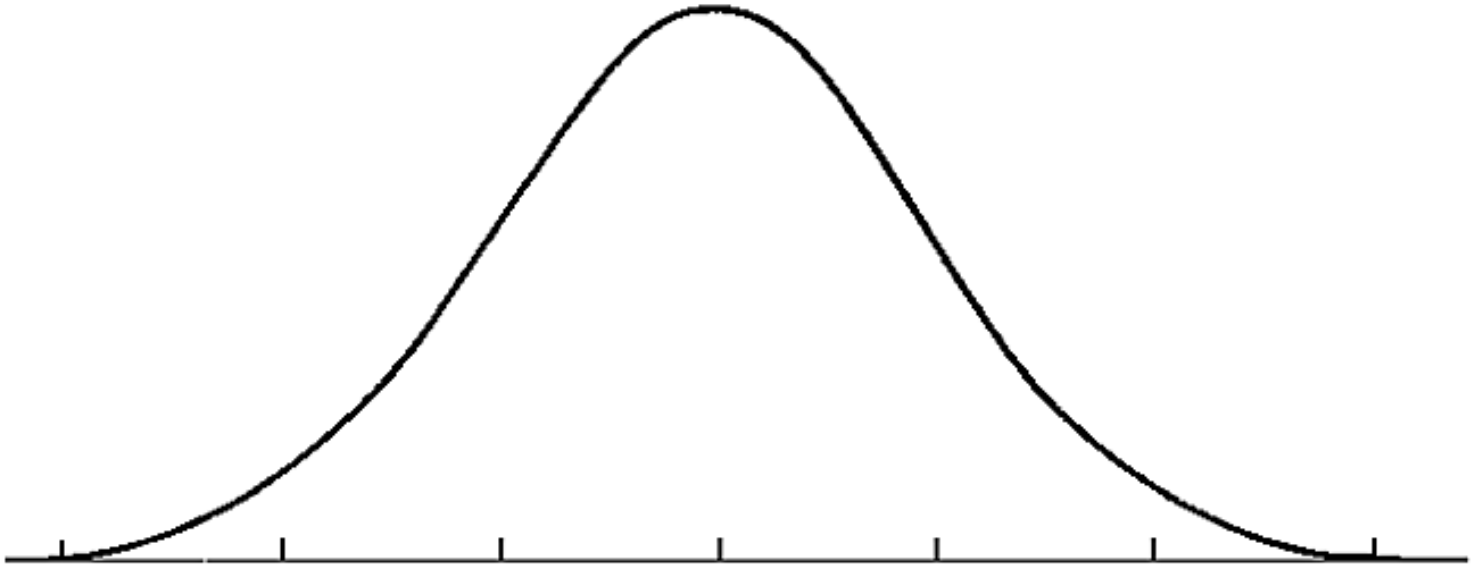


Algebra II Honors –

Normal Distribution



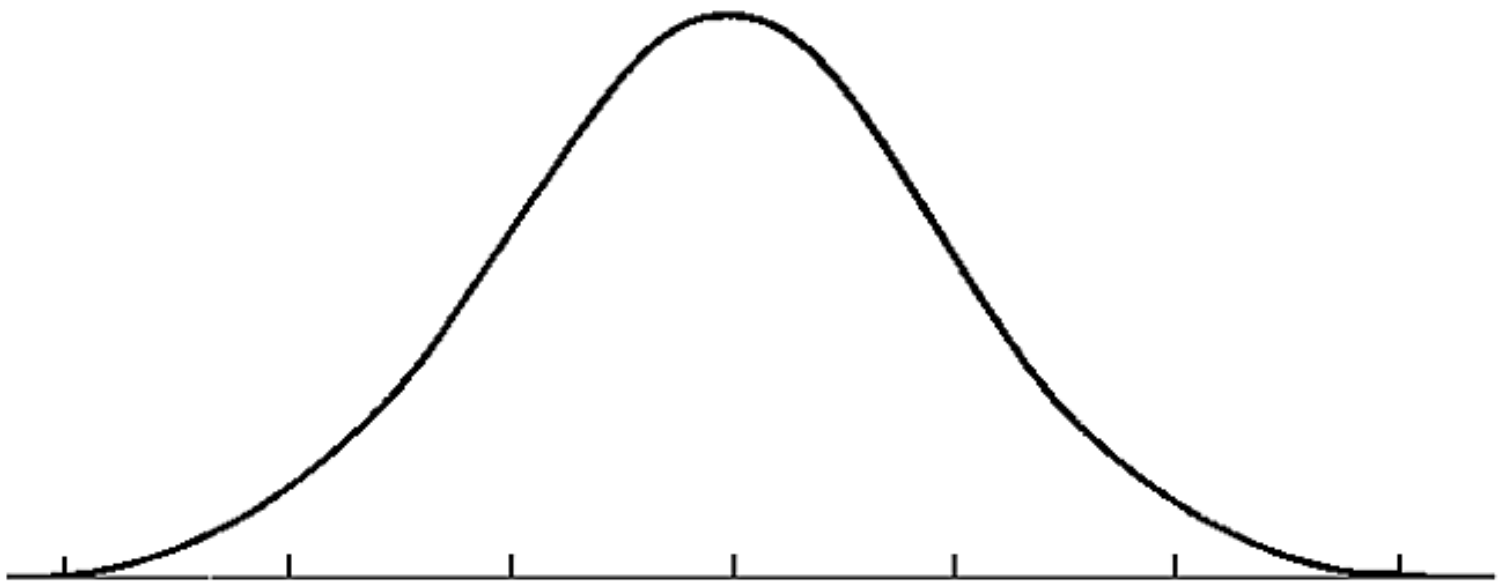
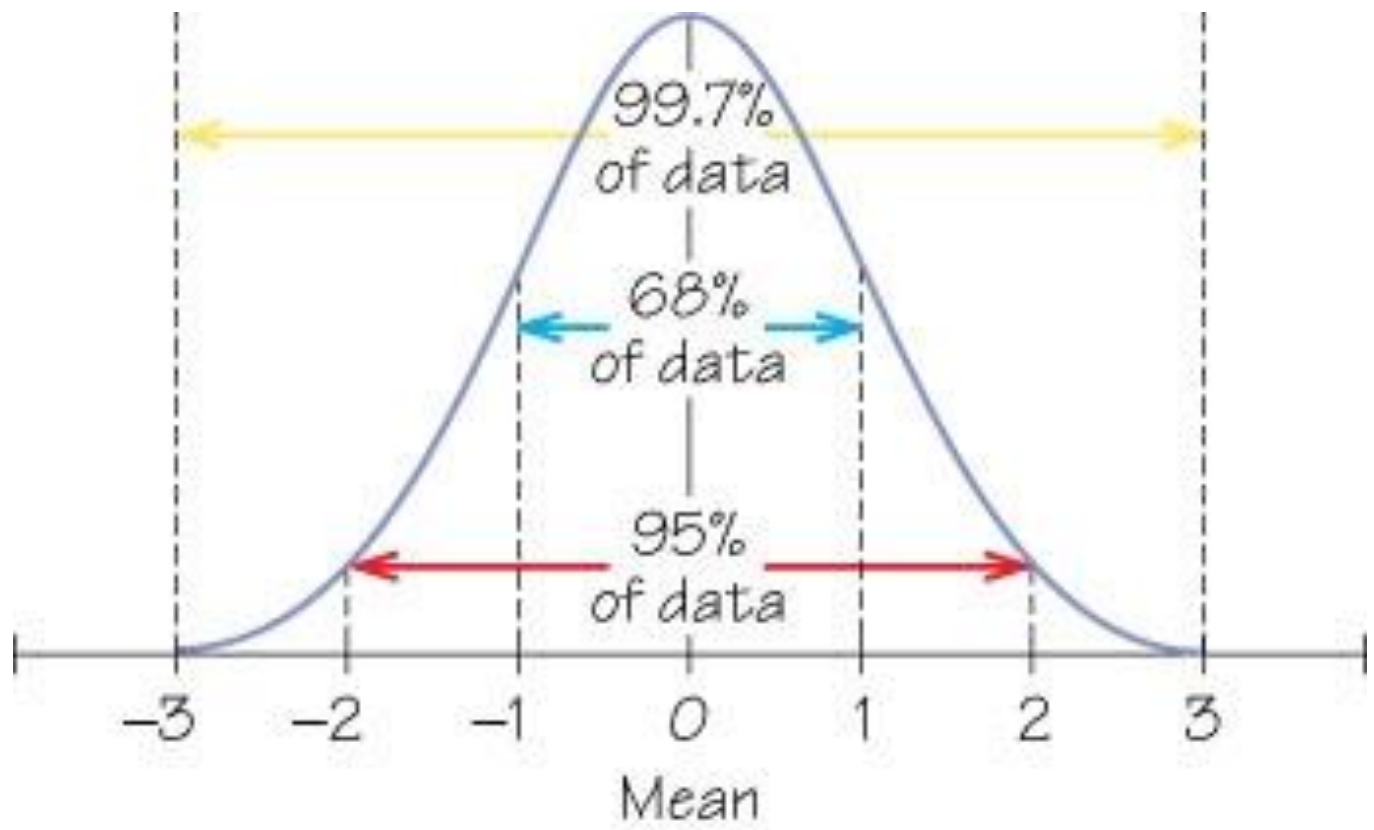
Some common Normal Distribution situations:

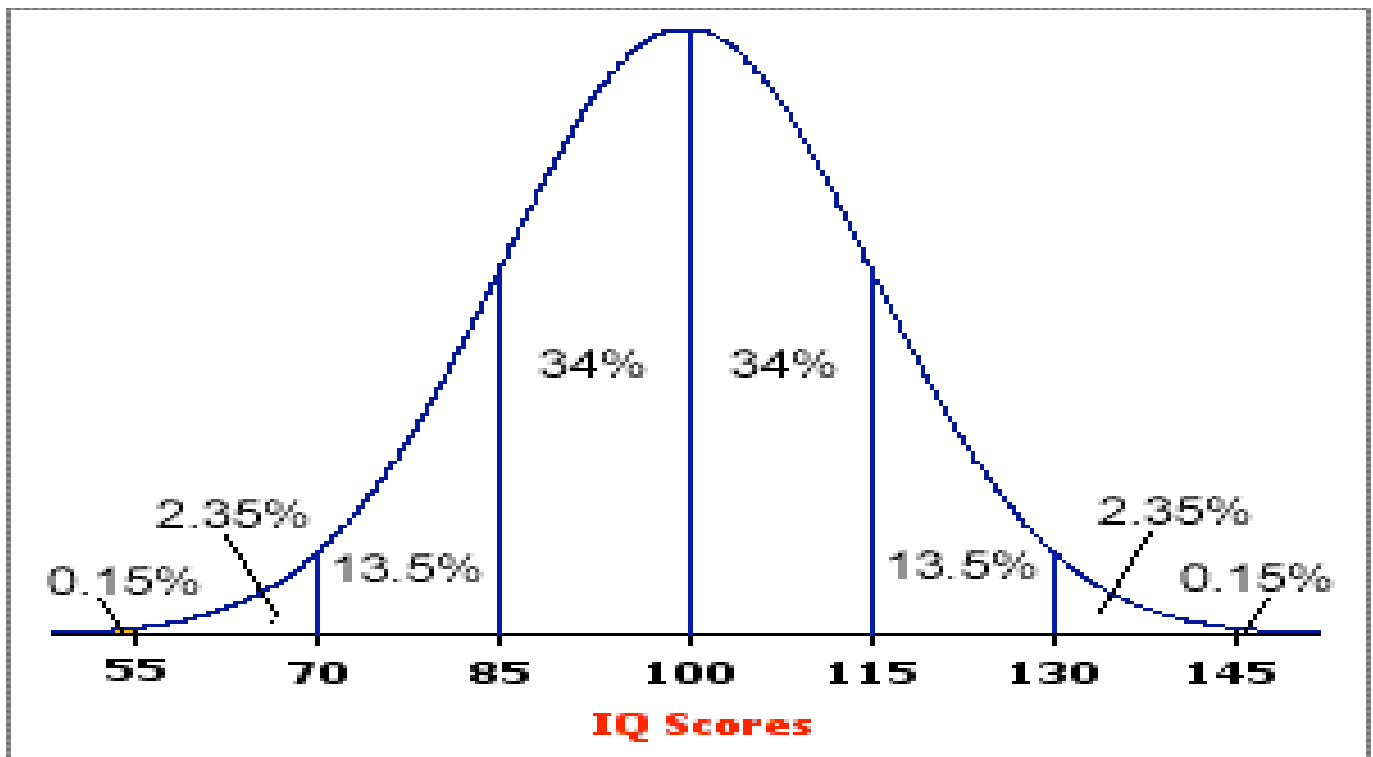
IQ Testing

SAT Scores

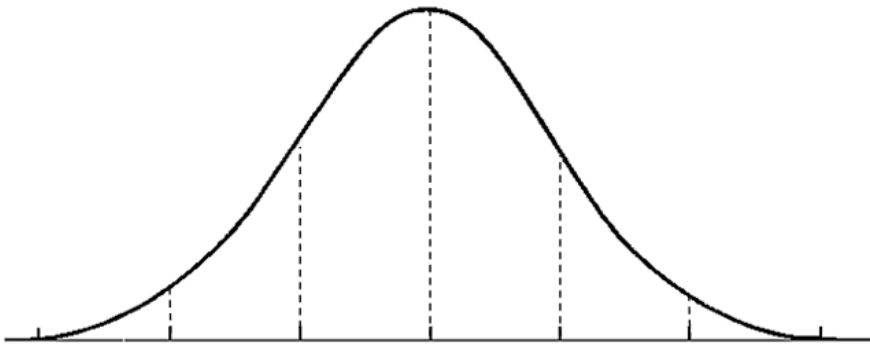
ACT Scores

Percentages of Data by Standard Deviation:

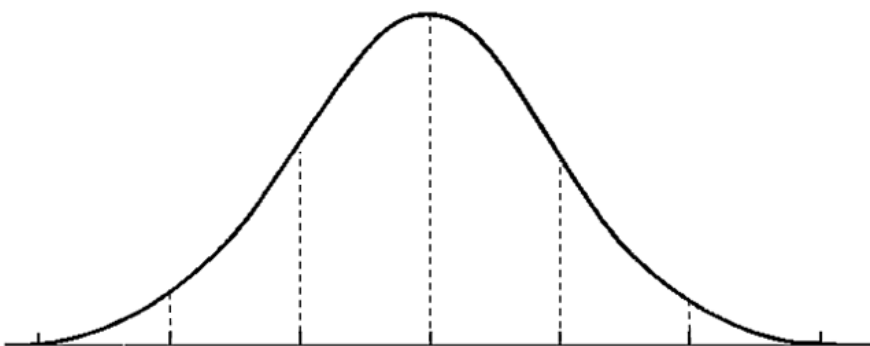




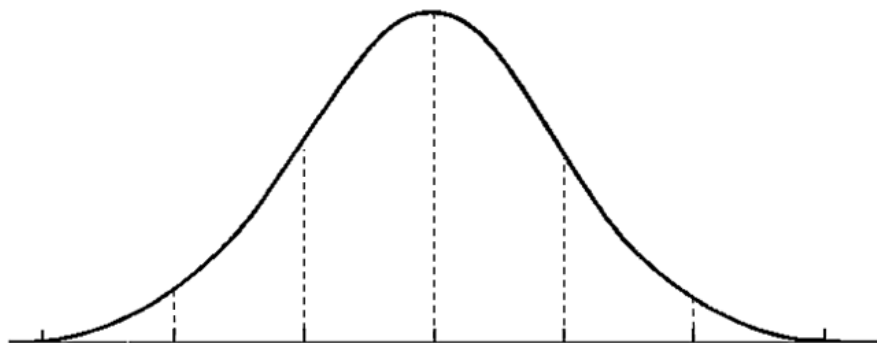
The mean length of time, per week, that students at a certain school spend on their homework is 24.3 hours, with a standard deviation of 1.4 hours. Assuming the distribution of study times is normal, what percent of students study between 22.9 and 25.7 hours?



The annual income of residents in a certain county is normally distributed, with a mean of \$42,000 and a standard deviation of \$10,000. What is the probability that a randomly chosen resident has income over \$52,000?



The weight of potato chip bags filled by a machine at a packaging plant is normally distributed, with a mean of 15.0 ounces and a standard deviation of 0.2 ounces. What percent of the potato chip bags will weigh less than 14.6 ounces?



The weight of potato chip bags filled by a machine at a packaging plant is normally distributed, with a mean of 15.0 ounces and a standard deviation of 0.2 ounces. If the plant produces 400 bags of chips a day, how many bags in a day would weigh less than 15.2 ounces?

