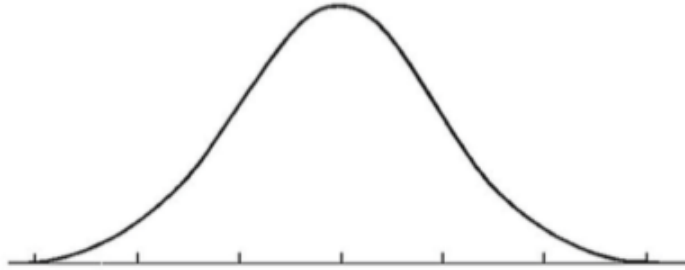# 68, 95, 99.7 Rule

1. A competency test has scores with a mean of 80 and a standard deviation of 10.
a) Sketch the distribution
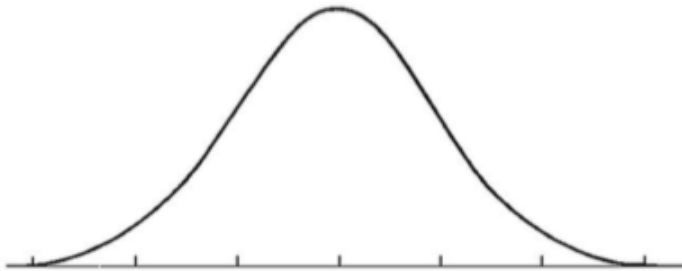

b) Between what two scores does 68% of the test scores fall?

c) How much of the data is between 80 and 110?

d? What percent of students got below a 60?

2. The Army reports that the distribution of head circumferences among male soldiers is normally distributed with a mean of 22 and a standard deviation of 2.
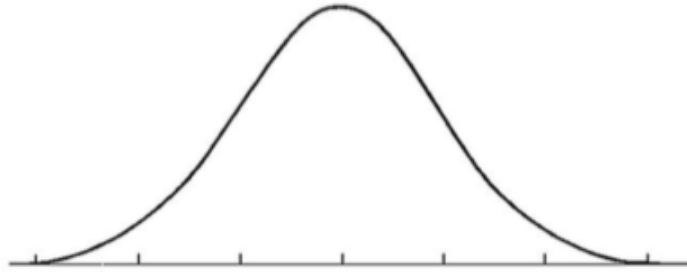a) Sketch the distribution

b) What percent of soldiers have a head circumference greater than 24 inches?

c) What percent of soldiers have a head circumference between 18 inches and 26 inches?

d? What percent of soldiers have a head circumference less than 24 inches?

3. SAT verbal scores are normally distributed with a mean of 450 and a standard deviation of 120.
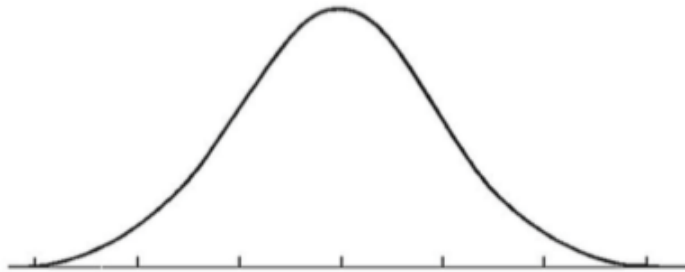a) Sketch the distribution

b) What percent of the scores lie between 210 and 690?

c) What percent of the scores lie between 450 and 690?

d) What percent of the scores lie between 210 and 570?

4. The mean weight of adult men is 180 pounds with a standard deviation of 25 pounds.
a) Sketch the distribution

b) What percent of men weigh less than 130 pounds?

c) What percent of men have a weight between 130 and 205 pounds?

d) What percent of all men have a weight less than 230 pounds?

e) What percent of men weight less than 105 pounds?