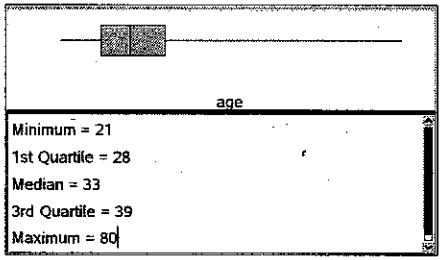
Algebra II

Percentiles

Name _____

Hour _____

1) The boxplot below shows the ages of actresses who have received an Oscar award for their performances.



a) At what percentile is an actress who is 28 year old?

a)_____

b) If an actress is at the 50% percentile ranking, what is her age?

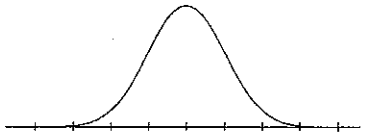
b)_____

c) At what age would 75% of the actress be at that age or below?

c)_____

2) The standard normal curve has a mean of 0 and a standard deviation of 1.

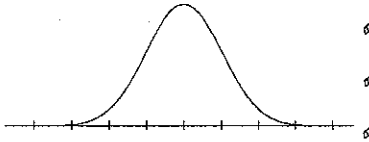
a) What percentile would be one standard deviation to the right of the mean? Shade this region and mark the percentile on your graph.



b) What percentile would be two standard deviations to the left of the mean? Shade this region and mark the percentile on your graph.

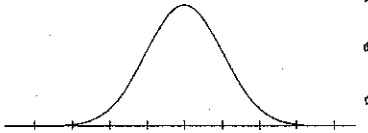
c) What percentile would be 1.5 standard deviations to the right of the mean? Shade this region and mark the percentile on your graph.

d) What percentile would be 0.52 standard deviations to the left of the mean? Shade this region and make the percentile on your graph.

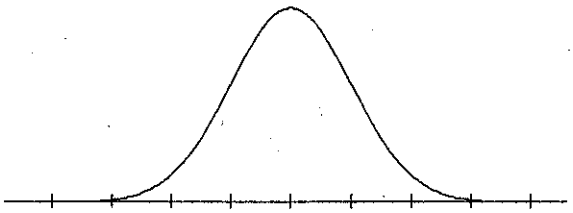


3) The distribution of heights of adult American males is approximately normal with a mean of 69 inches and a standard deviation of 2.5 inches.

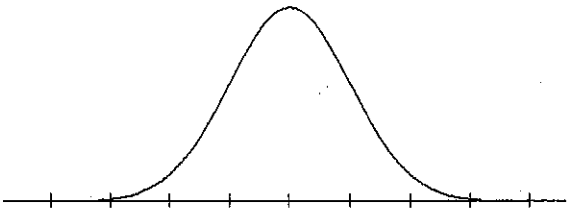
a) If a man has a height of 74 inches, what is his percentile rank? Shade this region and mark the percentile on your graph.



b) If a man has a height of 66.5 inches, what is his percentile rank? Shade this region and mark the percentile on your graph.



c) If a man has a height of 65 inches, what is his percentile rank? Shade this region and mark the percentile on your graph.



d) If an American male is in the 90th percentile, what is his height? Shade this region and mark the percentile on your graph.