MAT 1372-6556 Statistics with Probability Quiz 15 Fall 2012 Do without the aid of technology!

**1.** The heights of a certain population of males are normally distributed with mean 69 inches and standard deviation 6.5 inches. Approximate the proportion of this population whose height is more than 62.5 inches.

1. Begin by labeling the locations of 69 and 62.5 on the graph to the right.
2. Shade the area that corresponds to the question.
3. Find the proportion by using the fact that half the area is to the right of the midline.
4. Using NORMDIST(x,mean,standard\_dev,cumulative) and thinking complement, what is an Excel function to find the answer?



**2. a)** Find the value of the question mark:

*P*{−2 < *Z* < −1} = *P*{1 < *Z* <?}

Shade and label the picture of the standard normal curve

 to the right to show that your answer is correct.

**b)** Find the value of the question mark:

*P*{*Z* > 1} = *P*{*Z* < ?}.

Shade and label the picture of the standard normal curve to the left to show that your answer is correct.