

**Instructions:** Answer the questions concerning the distributions of men and women’s heights in the United States. Show all work in the manner shown in class. If you use a table to give a probability indicate (if not direct table look up, show method of using table via probability notation), if you use a calculator show the input, if you use a formula show the input. Use probability notation. Give probabilities to the correct number of decimals. For binomial probabilities round to the nearest 1000<sup>th</sup>. For normal probabilities round to the nearest 10,000<sup>th</sup>.

Heights of men in the US are normally distributed with the mean of 69.0 inches and standard deviation of 2.8 inches. Heights of women in the US are normally distributed with mean of 63.9 inches and standard deviation 2.5 inches. (As reported by Triola, *Essentials of Statistics*, Ed 4 p. 261)

The following is a sample of heights from students at Cañada College:

**Stem-and-Leaf of Heights in Inches**

Women		Men
Leaves (x1)	Stem (x10)	Leaves (x1)
1.5 1	6	
3.5 3 3 2	6	
5 4 4 4	6	4
6 6 6 6	6	6 7 7 7
9	6	8 9 9
	7	0 0 0
	7	2 2 2 2
	7	3 4

1. What do you notice about the distribution of women’s and men’s heights from the stem-and-leaf plot? Comment on shape and make a comparison between the gender’s.
2. What is the average height of the men in the Cañada sample?  
(Notate correctly. Use your calculator to find the statistic.)
3. What is the average height of the women in the Cañada sample?  
(Notate correctly. Use your calculator to find the statistic.)

