

1. The heights of women are normal distributed with a mean of 63.6 inches and a standard deviation of 2.5 inches. Beth is 5'10" tall and her friend Connie is 4'11". Is Beth or Connie an unusual height?

2. During a recent drought, the production of fruit in my backyard was lower than the average year. I wish to find out whether the apple tree or the orange tree had a worse year for fruit production. My apple tree has been averaging 264 lbs per year with a standard deviation of 88 lbs over the last 10 years. During the same time period, my orange tree has yielded an average of 350 lbs of oranges per year with a standard deviation of 25 lbs. During the drought year my apple tree yielded only 120 lbs of fruit while my orange tree yielded 300 lbs of fruit. Which tree had a worse year?