1. A *Utah quarter* is tossed 400 times and it comes up *heads* 225 times. Is the coin fair? Give an appropriate box model, state the null hypothesis, identify the test statistic, and compute the
 P-value. (5 points)

2. A car manufacturer believes that the average mileage per gallon of one of its new models exceeds the EPA rating of 43 miles per gallon. To gain evidence to support its belief, the manufacturer randomly selected 15 cars and recorded the miles per gallon for each car on a 100-mile course. The results for this sample are: $AV = 43.7$ and $SD = 3.8$. Give an appropriate box model, state the null hypothesis, identify the test statistic, and compute the P-value. (5 points)