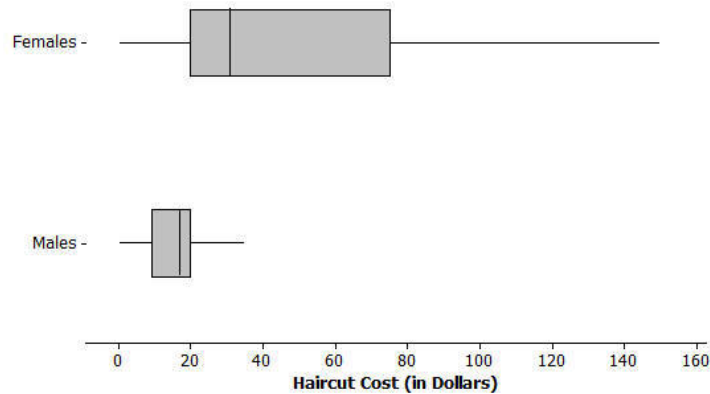**T2-06** Number: _____ Name: _____ Period: _____ Score: _____

Determine if the following sample is representative of the population. Explain how you know.
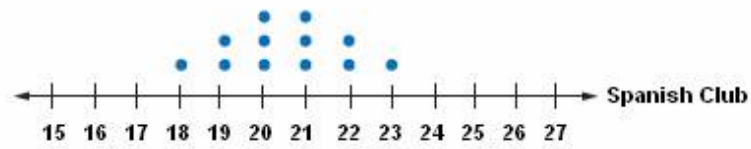
1. A beverage company wants to see if people in the United States like their new logo. They randomly select 100 shoppers at several different grocery stores in all 50 states for their survey.

2. A musician sells his albums to people all around the country. He wants to see what people thought about the songs on his last album. He randomly selects 100 people from California to survey.

3. A mayor wants to see if the people in his town think he is doing a good job. He randomly selects 20 people from every neighborhood in his town to survey.

Twenty males and twenty females were surveyed about the cost of their most recent haircut. The data is represented by the boxplots below.

4. Which gender spends more money on haircuts? How do you know?

5. Which gender has more variation? How do you know?

6. How many females spend between about $80 and $160 on their haircut? How do you know?

The dot plot below represents the ages of students participating in the Spanish Club at a community college.

Spanish Club

15 16 17 18 19 20 21 22 23 24 25 26 27

7. Calculate the mean age of students in the Spanish club.

8. Calculate the MAD of students in the Spanish club.

9. The community college also has a French club. The mean age of students in the French club is 19 and the MAD is 0.8. Which club has more variation in their ages? How do you know?