Lesson 6.1 Sampling

When a **population**, or data set, has a very large number of data points, sampling can be used to help summarize the data set.

To be sure that the description of the population is correct, **random sampling** should be used. If a summary is made based on **biased sampling**, the description of the population will not be accurate.

Diana is trying to find out what kind of music 7th graders prefer. If she was to interview the first 60 seventh graders to arrive at school one morning, she would be using random sampling because school arrival time has nothing to do with taste in music. If she was to interview 60 7th graders who are taking band, or who are at a concert for a specific band, she would be using biased sampling because both of those factors can affect someone's taste in music.

Tell if each sample would be considered *random* or *biased.*

1. Charlie puts a deck of cards in a bag. He shakes the bag and pulls 4 cards out of the bag.

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2. Nicole wanted to know what 6th graders' favorite movie of the year was. She asked 10 girls from her homeroom class.

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3. A garden has 100 pepper plants. John wants to know the number of peppers that are on each of the plants. He counts the number of peppers on the plants in one of the outside rows.

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4. Ben wants to know what time most 7th graders get on the bus in the morning. He surveys five students from each bus.

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5. Anna wants to know how much middle school students weigh. She weighs 1 student from each homeroom.

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6. Jordan wants to know which restaurant makes the best burger in town. He stands on a block between two different burger restaurants at dinner time and asks the first 25 people that walk by.

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