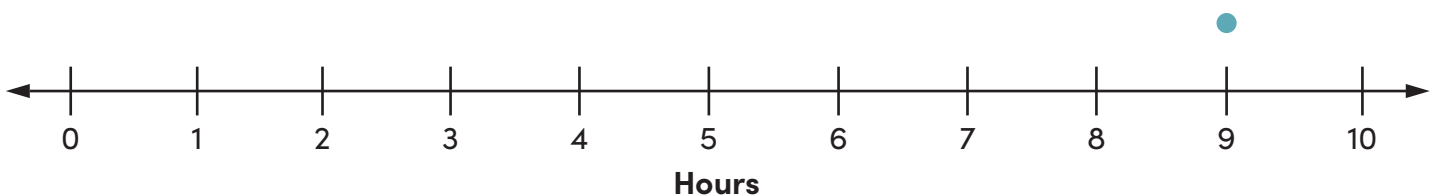# DRAWING INFERENCES USING DATA

Stefania wonders how much time students at her school spend playing video games.

1. Stefania and her sister Helena attend the same school. Helena loves video games. If Helena surveys 10 of her closest friends about how much time they spend playing video games, do you think that survey would be representative of all the students at their school? Explain your answer.

2. Stefania uses an app to randomly choose 30 students at her school to survey. In the survey, she asks each student how many hours they spend playing video games each week. Below is a table showing Stefania's survey data. Make a dot plot of the data using the number line below. The first dot has been plotted for you.

Hours Spent Playing Video Games Each Week					
9	1	10	6	2	7
2	5	5	8	4	4
5	2	4	1	6	2
7	7	8	4	10	9
3	9	0	1	3	8

Time Spent Playing Video Games

Hours

DRAWING INFERENCES USING DATA

3. Find the median and range of Stefania's data. You can use your dot plot to help.
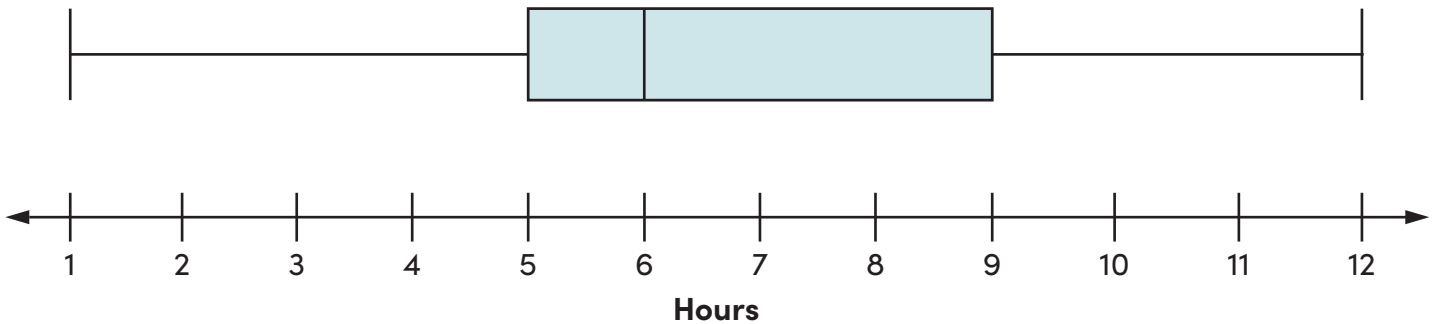
Median: _____   Range: _____

What inferences can you make about how much time students at Stefania's school play video games? You can use the median and range to help draw your inferences.

4. Stefania's best friend, Andre, attends the same school. He uses a computer to list the names of all students at the school in random order. Andre chooses the first 30 students on the list and asks them how many hours they spend playing video games each week. Are Stefania's and Andre's surveys likely to be representative of students at their school? Why or why not?

5. Andre represents his data using the box plot below.

Time Spent Playing Video Games

Hours

What are the median and range of Andre's survey data?

Median: _____   Range: _____

6. The median and range of Stefania's data are different from the median and range of Andre's data. Explain how this can happen even though the surveys were randomly given to students from the same school.