



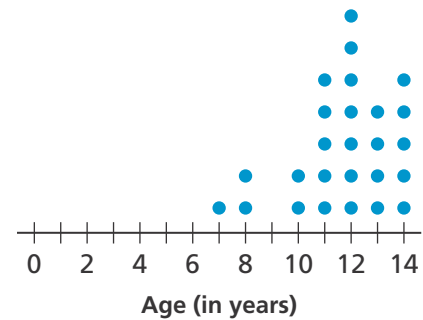
6-2 Additional Practice

Scan for
Multimedia



1. In an effort to try to convince her mother that she is too old to join the intermediate swim class, Mira, who is 13 years old, gathers data on the ages of a random sample of members of the current intermediate swim class. The results of the data collected by Mira are displayed in the dot plot shown.

Ages of Students in Intermediate Swim Class

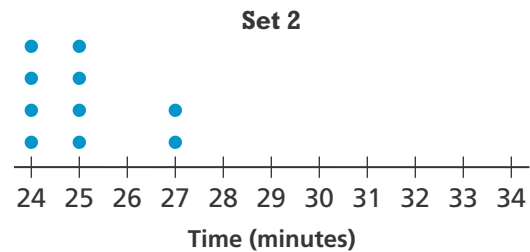
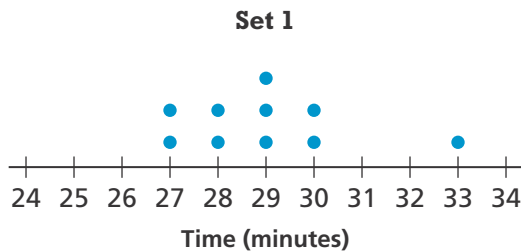


- a. The data are clustered between

and years old.

- b. Based upon the data collected, is it likely that Mira will be able to convince her mother that she is too old to join the intermediate swim class? Explain.

2. The following dot plots show the amount of time it takes each randomly sampled student to complete two different sets of math homework problems.



- a. What is the mean time for each set of problems?

The mean time for Set 1 is minutes.

The mean time for Set 2 is minutes.

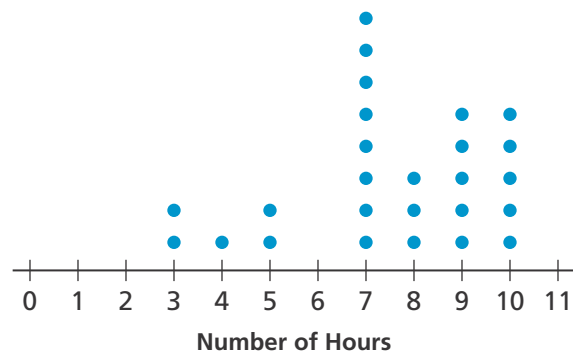
- b. **Reasoning** Make a comparative inference based on the mean values. © MP.2

Set of homework problems is more challenging than Set .



3. Sonya randomly surveys 26 seventh graders to gather data about the amount of time spent each week using the Internet. Sonya records the data in the dot plot shown. Sonya infers that, on average, most seventh graders use the Internet a little more than 7 hours each week.

Weekly Internet Use



- a. The mean of Sonya's data is hours.
- b. The median of Sonya's data is hours.
- c. Do the measures of center support Sonya's inference that most seventh graders use the Internet a little more than 7 hours each week? Explain.

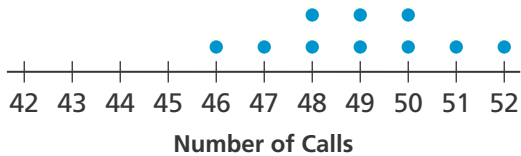
4. **Higher Order Thinking** To determine the number of squirrels in a conservation area, a researcher catches, tags, and releases 114 squirrels. He later catches 97 squirrels and finds that 33 of them are tagged. About how many squirrels are in the conservation area? Round to the nearest whole number.

5. **Critique Reasoning** A random survey was conducted about students' favorite vegetables. Ten students voted for green beans, 12 students voted for corn, and 3 students voted for broccoli. Rachel concludes that 240 of the 600 students in the school are expected to prefer green beans. Is her conclusion valid? Explain. © MP.3

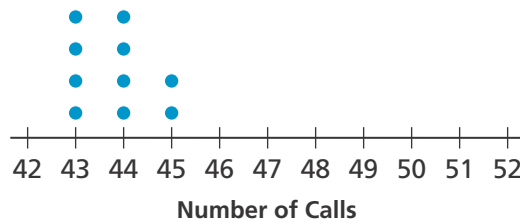
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6. The dot plots below show the number of calls two radio shows from different radio stations receive each day for a ten-day period. The two shows are on at the same time.

Radio Show 1



Radio Show 2



Which of the following inferences based on the median values is valid?

- Ⓐ The radio shows receive similar amounts of calls.
- Ⓑ Radio Show 1 generally receives more calls.
- Ⓒ Radio Show 2 generally receives more calls.

