**Draw Conclusions and Make Predictions**

You can use the mean, median, and mode to describe a set of data and to make predictions.

The line plot shows the number of puppies ZingZoo Pet Shop has had for sale each day. Each X represents a day when the shop had that number of puppies. If you are planning to pick out a puppy, how many puppies can you expect them to have the day you go shopping?

**Step 1:** Find the mean, median, and mode.

- **Mean** = \((8 \times 4) + (9 \times 3) + 10 + (13 \times 2) + (14 \times 3) + 15 = 152\)
  
  \[
  \text{Divide number of puppies by number of days} \quad 152 \div 14 = 10.857
  \]

- **Mean** is about 10.9

- **Median** = average of two middle numbers = 9.5

- **Mode** = most frequent number = 8

**Step 2:** Analyze the line plot.

The **cluster** at 8–10 has a greater number of days than the **cluster** at 13–15.

**Step 3:** Make a prediction using the mean, median, or mode and any clusters or gaps.

You found that the store has from 8 to 10 puppies on most days. The mean is pulled up by the cluster around 13–15. The median and mode best describe the number of puppies in ZingZoo on most days.

**Solution:** You can expect to see 8–9 puppies on the day you go shopping.

The line plot shows the number of hours Ben watched television each day. Use the line plot for Problems 1–3.

1. Find the mean, median, and mode of the data.

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2. Ben wants to convince his parents to put a television in his bedroom. Should Ben use the mean, median, or mode to convince his parents? Explain your choice.

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3. Use the mean, median, or mode to predict the number of hours Ben will likely spend watching television tonight. Explain your answer.

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