Do You Understand?

1. In the line plot of dog weights on the previous page, what does each dot represent?

2. In a line plot, how do you determine the values to show on the number line?

Do You Know How?

3. Draw a line plot to represent the data.

<table>
<thead>
<tr>
<th>Weights of Pumpkins</th>
<th>Tally</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>$3\frac{1}{2}$ lb</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$5\frac{1}{4}$ lb</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 lb</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$8\frac{1}{2}$ lb</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. In 4 and 5, complete the line plot for each data set.

4. $11\frac{1}{4}, 12\frac{1}{2}, 11\frac{1}{4}, 14\frac{3}{4}, 10\frac{1}{2}, 11\frac{1}{4}, 12$

5. $1\frac{1}{8}, 2, 1\frac{1}{2}, 1\frac{1}{4}, 1\frac{1}{8}, 1, 2, 1\frac{1}{2}, 1\frac{1}{4}$

6. In 6 and 7, construct a line plot for each data set.

6. $\frac{1}{2}, \frac{3}{4}, \frac{3}{4}, 1, 1, 0, \frac{1}{2}, \frac{1}{2}, \frac{3}{4}$

7. $5\frac{1}{2}, 5, 5, 5\frac{1}{8}, 5\frac{3}{4}, 5\frac{1}{4}, 5\frac{1}{2}, 5\frac{1}{8}, 5\frac{1}{2}, 5\frac{3}{8}$

*For another example, see Set B on page 725.*
8. **Make Sense and Persevere**  Martin’s Tree Service purchased several spruce tree saplings. Draw a line plot of the data showing the heights of the saplings.

9. **Look for Relationships**  How many more saplings with a height of $27\frac{1}{4}$ inches or less were there than saplings with a height greater than $27\frac{1}{4}$ inches?

10. **Higher Order Thinking**  Suppose Martin’s Tree Service bought two more saplings that were each $27\frac{1}{4}$ inches tall. Would the value that occurred most often change?

11. **Vocabulary**  Complete the sentence using one of the words below.

   - line plot
   - data
   - outlier

   A(n) ________ is a value that is very different from the other values in a data set.

12. **Be Precise**  Randall buys 3 tickets for a concert for $14.50 each. He gives the cashier a $50 bill. How much change does he get? Write equations to show your work.

13. Amy measured how many centimeters the leaves on her houseplants grew in July. Use the leaf growth data below to complete the line plot on the right.

   - $2\frac{1}{2}$, $4\frac{1}{2}$, $4$, $4$, $3$, $1$, $3$, $3\frac{1}{2}$, $3\frac{1}{2}$, $3\frac{1}{2}$, $2\frac{1}{2}$, $3$, $3\frac{1}{2}$, $3\frac{1}{2}$, $5\frac{1}{2}$