## Practice 6.1: Representing Data Sets

The following table lists Knoxville's average temperature for 15 days of May, in degrees Fahrenheit. Use the table to complete problems 1-3.

| Day | Temperature in ${ }^{\circ} \mathbf{F}$ | Day | Temperature in ${ }^{\circ} \mathbf{F}$ |  |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 61 | 9 | 64 |  |
| 2 | 63 | 10 | 58 |  |
| 3 | 68 | 11 | 61 |  |
| 4 | 73 | 12 | 69 |  |
| 5 | 65 | 13 | 72 |  |
| 6 | 69 | 14 | 74 |  |
| 7 | 77 | 15 | 73 |  |
| 8 | 74 |  |  |  |

1. What are the minimum, maximum, and median temperatures for these 15 days of May?
2. What are the first and third quartiles of the data?
3. Create a box plot to show the distribution of the temperatures over these 15 days.

## Lesson 6.1: Representing Data Sets

The following table shows Birmingham's average rainfall each month, rounded to the nearest halfinch. Use the table to complete problems 4 and 5.

| Month | Rainfall in inches |
| :---: | :---: |
| January | 5 |
| February | 4.5 |
| March | 5.5 |
| April | 4 |
| May | 4 |
| June | 4 |
| July | 5 |
| August | 3.5 |
| September | 4 |
| October | 3.5 |
| November | 4 |
| December | 4 |

4. A farmer is considering buying land near Birmingham. He only wants to buy the land if he can expect more than 3.5 inches of rainfall per month for at least 6 months out of the year. Which type of graph would show this information? Explain.
5. Create the graph you identified in problem 4.

A toy shop manager tracks sales of store gift cards. Gift cards are only sold in $\$ 5, \$ 10, \$ 15, \$ 20, \$ 25$, or $\$ 30$ denominations. The denominations of the 15 most recent gift cards sold are in the following table. Use the data in it to complete problems 6-10.

| Customer | Gift card value | Customer | Gift card value |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $\$ 20$ | 9 | $\$ 20$ |  |  |
| 2 | $\$ 10$ | 10 | $\$ 25$ |  |  |
| 3 | $\$ 25$ | 11 | $\$ 15$ |  |  |
| 4 | $\$ 5$ | 12 | $\$ 5$ |  |  |
| 5 | $\$ 5$ | 13 | $\$ 20$ |  |  |
| 6 | $\$ 15$ | 14 | $\$ 10$ |  |  |
| 7 | $\$ 10$ | 15 | $\$ 10$ |  |  |
| 8 | $\$ 15$ |  |  |  |  |

6. The toy shop manager wants to understand how many of each type of gift card are being sold. Which type of graph would show this information? Explain.
7. Create the graph identified in problem 6.
8. The toy shop manager also wants to understand the center and spread of the gift card values. Which type of graph would show this information? Explain.
9. Create the graph identified in problem 8.
10. The shop's customers buy 15 more gift cards. The median gift card value of this set of 15 gift cards is $\$ 20$. How does this compare to the gift card values in the table?
