

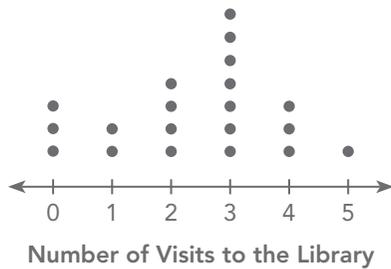
### Lesson 13.2 Dot Plots

Represent each set of data with a dot plot. Give each dot plot a title.

*Example*

A group of 20 students were asked the number of times they visited the library last week. The results are recorded in the table below.

|  |   |   |   |   |   |   |
|--|---|---|---|---|---|---|
| <b>Number of Visits to the Library</b> | 0 | 1 | 2 | 3 | 4 | 5 |
| <b>Number of Students</b>              | 3 | 2 | 4 | 7 | 3 | 1 |



1. A group of 20 teenagers were asked the number of brothers and sisters they have. The results are recorded in the table below.

|                                       |   |   |   |   |   |   |
|---------------------------------------|---|---|---|---|---|---|
| <b>Number of Brothers and Sisters</b> | 1 | 2 | 3 | 4 | 5 | 6 |
| <b>Number of Teenagers</b>            | 0 | 2 | 6 | 9 | 2 | 1 |



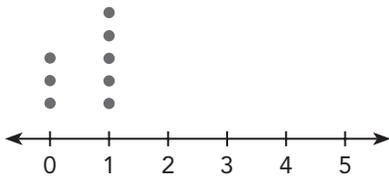
\_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

2. Twenty travelers were asked the number of times they have gone on a cruise. The results are recorded in the table below.

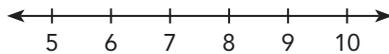
|                                    |   |   |   |   |   |   |
|------------------------------------|---|---|---|---|---|---|
| <b>Number of Times on a Cruise</b> | 0 | 1 | 2 | 3 | 4 | 5 |
| <b>Number of Travelers</b>         | 3 | 5 | 8 | 2 | 1 | 1 |



\_\_\_\_\_

3. Eighteen bakers were asked the number of cakes they sold in a day. The results are recorded in the table below.

|                             |   |   |   |   |   |    |
|-----------------------------|---|---|---|---|---|----|
| <b>Number of Cakes Sold</b> | 5 | 6 | 7 | 8 | 9 | 10 |
| <b>Number of Bakers</b>     | 6 | 4 | 4 | 2 | 1 | 1  |



\_\_\_\_\_

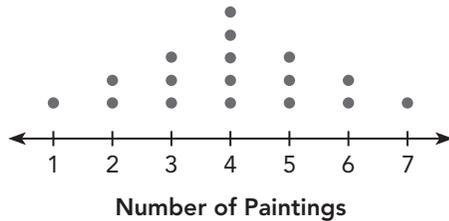
Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Briefly describe the distribution of the given data from the dot plot.**

*Example*

The number of paintings done by 17 artists in a week is shown in the dot plot below. Each dot represents 1 artist.



The 17 dots represent 17 artists.

The data show a symmetrical dot plot centered around 4.

Most of the data fall between 3 and 5.

The data spans from 1 to 7.

So, the range is 7 - 1 = 6.

The artists typically did between 3 and 5 paintings in a week, but the number of paintings done ranges from 1 to 7.

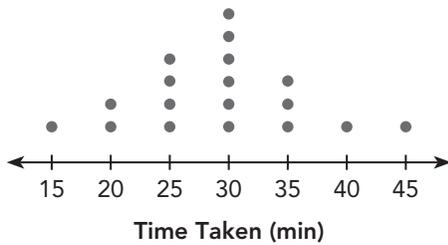
A dot plot can be described by its **range**.



Name: \_\_\_\_\_

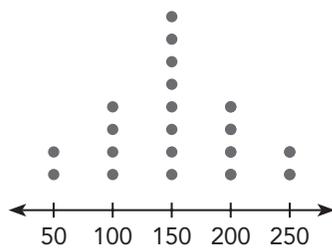
Date: \_\_\_\_\_

4. The time (in minutes) taken by 18 students to complete an assignment given by their teacher is shown in the dot plot below.



The \_\_\_\_\_ dots represent 18 students. The data show a nearly \_\_\_\_\_ dot plot centered around \_\_\_\_\_. Most of the data fall between \_\_\_\_\_ and \_\_\_\_\_. The data spans from \_\_\_\_\_ to \_\_\_\_\_. So, the range is \_\_\_\_\_ - \_\_\_\_\_ = \_\_\_\_\_. The students typically completed their assignments between \_\_\_\_\_ minutes and \_\_\_\_\_ minutes, but the time spent to complete their assignments ranges from \_\_\_\_\_ minutes to \_\_\_\_\_ minutes.

5. The number of plastic bottles collected by 20 volunteers for a community recycling project is shown in the dot plot below.

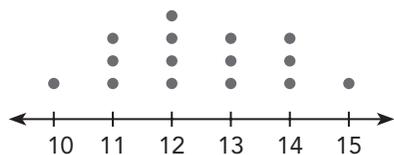


Number of Plastic Bottles Collected

Name: \_\_\_\_\_

Date: \_\_\_\_\_

6. The number of orange trees in 15 orchards is shown in the dot plot below.

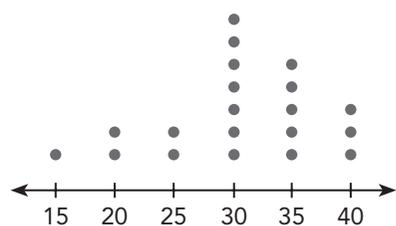


Number of Orange Trees in Orchards

**Briefly describe the distribution of the given data from the dot plot.**

*Example*

The weekly spending (in dollars) of 20 students in a class is shown in the dot plot below.



Weekly Spending (\$)

The 20 dots represent 20 students. The dot plot has a "tail" on the left. Most of the data fall between \$30 and \$40, and the

distribution is skewed to the left. The data spans from

\$15 to \$40. So, the range is \$40 - \$15 = \$25.

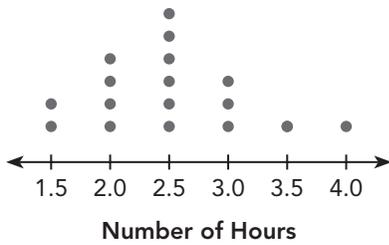
From the description of the plot, you know that the students spent about

\$35, and all of them spent \$15 to \$40.

Name: \_\_\_\_\_

Date: \_\_\_\_\_

7. The number of hours spent by 16 students surfing the net per day is shown in the dot plot below.



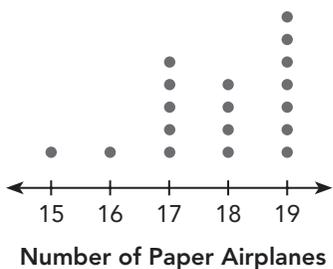
The \_\_\_\_\_ dots represent 16 students. The dot plot has a “tail” on the \_\_\_\_\_. Most of the data fall between \_\_\_\_\_ and \_\_\_\_\_, and the distribution is skewed to the \_\_\_\_\_.

The data spans from \_\_\_\_\_ to \_\_\_\_\_. So, the range is

$$\underline{\hspace{1cm}} - \underline{\hspace{1cm}} = \underline{\hspace{1cm}}.$$

From the description of the plot, you know that the students spent about \_\_\_\_\_ hours surfing the net per day, and all of them spent \_\_\_\_\_ hours to \_\_\_\_\_ hours.

8. The number of paper airplanes a group of friends made is shown in the dot plot below.



13. Favorite Color of Michelle's Friends

| Favorite Color | Tally   | Frequency |
|----------------|---------|-----------|
| Red            | HHH /   | <u>6</u>  |
| Blue           | HHH III | <u>8</u>  |
| Green          | IIII    | <u>4</u>  |
| Yellow         | II      | <u>2</u>  |
| White          | HHH     | <u>5</u>  |

14. 25                                      15. 5  
 16. 6                                        17. 19  
 18. 4                                        19. 2

20.

| Number of Hours | Tally           | Frequency |
|-----------------|-----------------|-----------|
| 0 – 1           | HHH III         | <u>8</u>  |
| 2 – 3           | HHH HHH HHH III | <u>18</u> |
| 4 – 5           | IIII            | <u>4</u>  |

21. 30                                        22. 22  
 23. 4                                        24. 2 hours  
 25. 2

26.

| Number of People in Each Car | Tally    | Frequency |
|------------------------------|----------|-----------|
| 1                            | HHH      | <u>5</u>  |
| 2                            | HHH III  | <u>8</u>  |
| 3                            | HHH IIII | <u>9</u>  |
| 4                            | HHH /    | <u>6</u>  |
| 5                            | II       | <u>2</u>  |

27. 30                                        28. 13  
 29. 17                                       30. 82

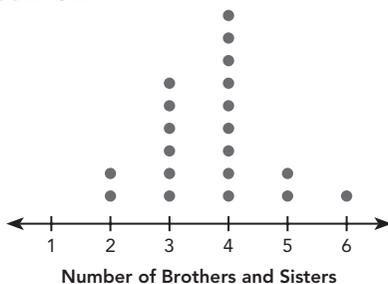
31.

| Number of Books | Tally     | Frequency |
|-----------------|-----------|-----------|
| 0               | II        | <u>2</u>  |
| 1               | HHH II    | <u>7</u>  |
| 2               | HHH IIII  | <u>9</u>  |
| 3               | HHH III   | <u>8</u>  |
| 4               | HHH HHH / | <u>11</u> |
| 5               | II        | <u>2</u>  |
| 6               | /         | <u>1</u>  |

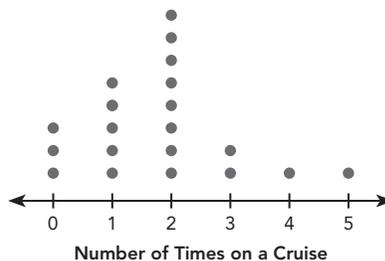
32. 4                                        33. 9  
 34. 14

Lesson 13.2

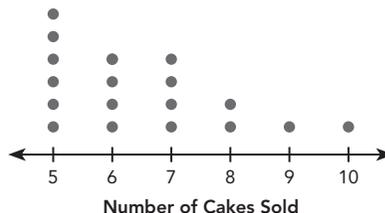
1.



2.



3.



4. The 18 dots represent 18 students. The data show a nearly symmetrical dot plot centered around 30. Most of the data fall between 25 and 35. The data spans from 15 to 45. So, the range is  $45 - 15 = 30$ . The students typically completed their assignments between 25 minutes and 35 minutes, but the time spent to complete their assignments ranges from 15 minutes to 45 minutes.
5. The 20 dots represent 20 volunteers. The data show a symmetrical dot plot centered around 150. Most of the data fall between 100 and 200. The data spans from 50 to 250. So, the range is  $250 - 50 = 200$ . The volunteers typically collected between 100 bottles and 200 bottles, but the number of plastic bottles collected ranges from 50 to 250 bottles.
6. The 15 dots represent 15 orchards. The data show a nearly symmetrical dot plot centered around 12. Most of the data fall between 11 and 14. The data spans from 10 to 15. So, the range is  $15 - 10 = 5$ . The number of orange trees is typically between 11 and 14, but the number of orange trees ranges from 10 to 15 trees.
7. The 16 dots represent 16 students. The dot plot has a "tail" on the right. Most of the data fall between 2.0 and 3.0, and the distribution is skewed to the right. The data spans from 1.5 to 4.0. So, the range is  $4.0 - 1.5 = 2.5$ . From the description of the plot, you know that the students spent about 2.5 hours surfing the net per day, and all of them spent 1.5 hours to 4.0 hours.
8. The 18 dots represent 18 friends. The dot plot has a "tail" on the left. Most of the data fall between 17 and 19, and the distribution is skewed to the left. The data spans from 15 to 19. So, the range is  $19 - 15 = 4$ . From the description of the plot, you know that the group of friends made about 18 paper airplanes, and all of them made 15 to 19 paper airplanes.