Topic 18 Graphs and Data
RETEACHING

Topic 18 Reteaching

Set E, pages 444–445

David made a histogram to show how many books his class had purchased in the last year.

Using the histogram, find the number of students who purchased 3–5 books. Notice the bar with the 3–5 interval has a height of 8. Therefore, the number of students is 8.

Remember that histograms are a type of bar graph that has no space between the bars and the bars show equal intervals.

Use the histogram at the left to answer the following questions.

1. How many students were surveyed? **20**
2. How many students had bought more than 5 books? **6**
3. What fraction of the students bought 9, 10, or 11 books? $\frac{1}{10}$

Set F, pages 446–448

A group of 100 students were asked to name their favorite type of television program. Make a circle graph to show the results.

Unit

Favorite Type of Television Program	
Comedy	25
Sports	50
Drama	10
Other	15

Comedy = 25 out of 100 = $\frac{1}{4}$

Sports = 50 out of 100 = $\frac{1}{2}$

Drama = 10 out of 100 = $\frac{1}{10}$

Other = $\frac{15}{100} = \frac{3}{20}$

Draw a circle with sectors for $\frac{1}{2}$, $\frac{1}{4}$, and $\frac{1}{10}$ and label those sectors with the program type. The remaining sector shows $\frac{3}{20}$ or Other.

Remember that a circle graph shows the whole amount (100%) and each sector represents a part of the whole amount.

Jill spent a total of 30 hours exercising last month: Jogging: 15 hours; Cycling: 10 hours; Swimming: 5 hours.

1. Copy the circle graph and label each sector with the activity and fraction. **See margin.**
2. What fraction represents the part of the day Jill spent cycling? $\frac{1}{3}$

Topic 18 Reteaching

Set G, pages 450–453

Find the mean, median, mode, and range for this set of data: 10, 13, 20, 12, 10

To find the mean, find the sum of the data and divide by the number of numbers.

10 + 13 + 20 + 12 + 10 = 65

65 ÷ 5 = 13 **The mean is 13.**

To find the median, list the data in order from least to greatest, and find the middle value.

10, 10, 12, 13, 20 **The median is 12.**

To find the mode, find the value that occurs most often.

The mode is 10.

To find the range, subtract the least value from the greatest value.

20 − 10 = 10 **The range is 10.**

Remember that if there is an even number of values, you must add the two middle numbers when the data set is ordered from least to greatest, and then divide by 2 to find the median.

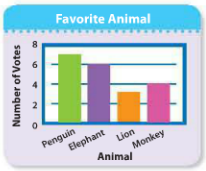
1. Find the mean of this data set: 13, 16, 25, 22, 19 **19**
2. Find the mean of this data set: 3, 5, 9, 2, 4, 6, 6 **5**
3. Find the range of this data set: 1, 19, 2, 8, 6, 10, 4 **18**
4. Find the median of this data set: 27, 21, 24, 32 **25.5**
5. Find the mode of this data set: 12, 6, 9, 5, 8, 12, 8, 1, 4, 12, 6 **12**
6. Find the range of this data set: 87, 84, 90, 75, 100, 88 **25**

Set H, pages 454–455

Students were asked to name their favorite animal. Make a bar graph to show the results.

Unit

Favorite Animal	
Penguin	7
Elephant	6
Lion	3
Monkey	4

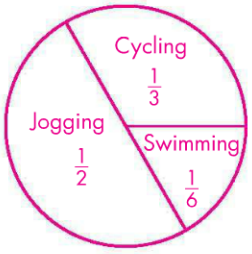


Remember that making a graph makes it easy to visualize data and answer questions about the data.

Monthly Snowfall				
Month	Dec.	Jan.	Feb.	Mar.
Inches	6	12	18	4

1. Make a line graph of the data. **See margin.**
2. Which month has a snowfall 3 times as great as December? **February**

Set F
1.



Set H
1.