

# Frequency Tables (pages 88–91)

You can organize large amounts of data in a **frequency table**, which shows the number of times each item appears. A frequency table has a **scale** that includes all of the numbers in the data. A frequency table also has an **interval**, which separates the scale into equal parts. The **range** of the data is the difference between the greatest and least numbers in the data.

## EXAMPLE

Luis surveyed T-shirt shops in Port Aransas to find the average prices (in dollars) of souvenir T-shirts.

The average prices he found at each shop were: 9, 10, 12, 9, 18, 12, 13, 10, 5, 8, 16, and 11.

Create a frequency table with these data.

- The range for this data is  $18 - 5$ , or 13.
- The frequency table includes all of the data, so the scale will be from 1–20.
- The interval, which divides the data into four equal parts, is 5.

Cost (\$)	Tally	Frequency
1–5		1
6–10		5
11–15		4
16–20		2

## Try This Together

- Every student in the Pet Lovers Club has at least one pet. The number of pets each member has is 1, 2, 1, 1, 3, 2, 4, and 6. Make a frequency table with this data. Identify the range, scale, and interval.

*Hint: The scale must include all of the data, and the interval must divide the data into equal-sized parts.*

## PRACTICE

**Find the range for each set of data. Choose an appropriate scale and interval for a frequency table.**

- 5, 3, 2, 1, 4, 6, 9
- 111, 125, 101, 94, 136
- 15, 10, 24, 20, 37, 40
- 5, 6, 11, 0, 14, 12, 8, 16, 18
- 220, 340, 130, 180, 230, 340, 100
- 20, 10, 50, 60, 40, 30, 90, 70
- Draw a number line that shows a scale of 0 to 10 and an interval of 2.
- Food** Alex's class is having a pizza party. The set of data shows what kinds of pizza people ordered. Make a frequency table of the data.

Kind of Pizza				
P	V	M	V	M
S	P	S	M	P
P	S	P	V	V

S = sausage  
P = pepperoni  
M = mushroom  
V = vegetable



- Standardized Test Practice** What is the range of this set of data?  
15, 10, 12, 16, 18, 5, 3, 46, 35, 21, 26

**A** 41

**B** 31

**C** 36

**D** 43

**Answers:** 1. See Answer Key. 2–7. Sample scales and intervals are given. 2. 8; 1–10, 2 3. 30; 10–44, 5 4. 42; 90–139, 10 5. 240; 100–349, 50 6. 18; 0–19, 2 7. 80; 0–99, 20 8–9. See Answer Key. 10. D