

Name _____ Date _____

Circle Graphs (Pages 148–151)

A **circle graph** compares parts of a set of data to the whole set.

Drawing a Circle Graph

- If the data is given in numbers (rather than percents), first find the total number and find a ratio that compares each category to the total.
- Multiply each ratio or percent by 360 degrees to find the number of degrees for that section of the graph.
- Use a compass to draw a circle. Draw a radius. Use a protractor to draw any of the angles. From the new radius, use the protractor to draw the next angle, and repeat.
- Label each section. Write each ratio as a percent. Title the graph.

EXAMPLE

How many degrees will you draw in a circle graph to represent 25%?

Write the percent as a decimal: 0.25 .

Multiply 360 degrees by the decimal: $360 \times 0.25 = 90$.

90 degrees represents 25% of the circle.

Try This Together

1. Use the table in Exercise 2 to find the number of degrees in the section of the circle graph that represents dogs in 1-person families.

HINT: Find 13% of 360.

PRACTICE

2. **Pets** The table shows the percent of dogs that lived with 1, 2, 3, and 4-person families in a recent year.

- a. Make a circle graph of the data.
- b. Which family size owns about one-fifth of the dogs?

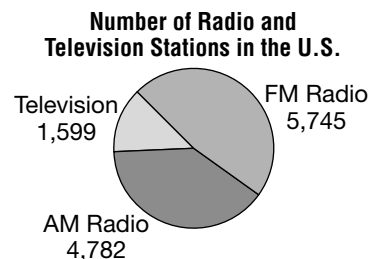
Number of People in Family	Percent of Dogs
1	13%
2	31%
3	21%
4	35%

3. **School** It is projected that in 2005 there will be 38,289,000 students in kindergarten through 8th grade; 16,299,000 students in 9th through 12th grade; and 16,228,000 students in college. Make a circle graph of this data.



4. **Standardized Test Practice** The circle graph shows the number of radio and television stations in the U.S. in 1999. About what percent of radio and television stations were AM radio stations?

- A** 47% **B** 55%
C 39% **D** 29%



Answers: 1. 47 degrees 2a. See Answer Key. 2b. 3-person families 3. See Answer Key. 4. C