

11-2 Making Circle Graphs (Pages 556–560)

You can use a **circle graph** to compare parts of a whole in a way that helps to visualize the information.

Making a Circle Graph There are 360 degrees in a circle. To find the number of degrees in each section of a circle graph, multiply the percent for the section by 360 degrees. When the data for a graph is not expressed as a percent, write a fraction or ratio for each section, convert it to a decimal, and then multiply this decimal by 360 degrees.

EXAMPLE

In a poll, $\frac{1}{4}$ of the students say their favorite class is math, $\frac{1}{3}$ say English, and the rest have mixed answers. Show this in a circle graph.

Number of degrees in each section:

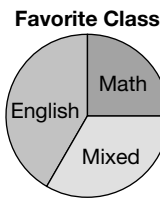
Math $\frac{1}{4} \times 360 = 90$

English $\frac{1}{3} \times 360 = 120$

Mixed $360 - (90 + 120) = 150$

Draw a circle using a compass. With a straightedge and a protractor, draw an angle of 90 degrees in the circle.

Repeat for the remaining sections. Label each section and give the graph a title.



Try These Together

- Ten candidates each got the same number of votes. Represent this with a circle graph.
HINT: Each section will be $\frac{1}{10}$ of a circle.
- When a group of students named their favorite color, 10% said blue, 20% said red, 30% said green, and 40% said yellow. Represent this with a circle graph.

HINT: Use the % button on your calculator to convert each percent into a decimal.

PRACTICE

- Personal Finance** Roger listed all the money he made in the last year. Complete the table and make a circle graph to display the data. Use a spreadsheet or word processing software if it is available.

Sources of Income	Amount (\$)	Percent	Angle (°)
Mowing lawns	\$600		
Delivering pizzas	\$1080		
Summer internship	\$1920		
Gifts from relatives	\$100		
Totals			



- Standardized Test Practice** A circle graph has 7 equal-size sections. What is the measure of the angle for each section?

- A** 51.4; **B** 25.7; **C** 14.3; **D** 12.9;

Answers: 1–3. See answer key. 4. A