## Circle Graphs

A circle graph is a visual representation of data, made by dividing a circle into sectors. Each sector represent parts of a whole.

Usually the amounts in each sector are represented in percent, so that all of the amounts total $100 \%$.


Procedure for finding degrees for each sector

1. Find the percent for each category by dividing each expense by the total.
2. Multiply the percent of each category by $360^{\circ}$ to find the measure of the each sector.

Construct a pie chart to illustrate that information.
A family weekly income of $\mathbf{\$ 2 0 0}$ is budgeted in this manner; $\mathbf{\$ 6 0}$ food, $\mathbf{\$ 5 0}$ rent, $\$ 20$ clothing, $\$ 20$ books, $\$ 30$ entertainment and $\$ 20$ other.

1. The Jones family has a budget. Each month it uses its income in the following manner: $\mathbf{3 0 \%}$ for food, $\mathbf{2 5 \%}$ for rent, $\mathbf{2 0 \%}$ for transportation, $\mathbf{1 0 \%}$ for savings, $\mathbf{5 \%}$ for entertainment, and $\mathbf{1 0 \%}$ for unexpected expenses. Construct a pie graph representing this information.
2. Each dollar that the government obtains in taxes is spent in the following manner: $\mathbf{2 5}$ cents goes to defense, $\mathbf{3 0}$ cents goes to social security, $\mathbf{1 0}$ cents goes to farm subsidies, $\mathbf{1 5}$ cents goes to government salaries, and 20 cents is spent on miscellaneous social programs. Construct a circle graph representing this information.
3. In 1988 a university received the indicated amount of revenue from the following sources:

| Federal Aid: | $\$ 600,000$ |
| :--- | ---: |
| State Aid: | 700,000 |
| Private Donations: | 100,000 |
| Corporate Donations: | 200,000 |
| Student Tuition: | 300,000 |
| Other: | 100,000 |

