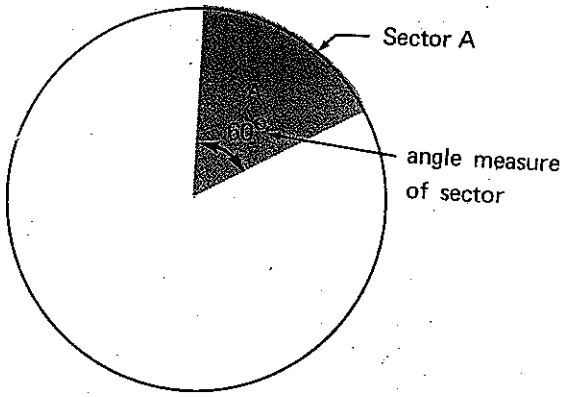
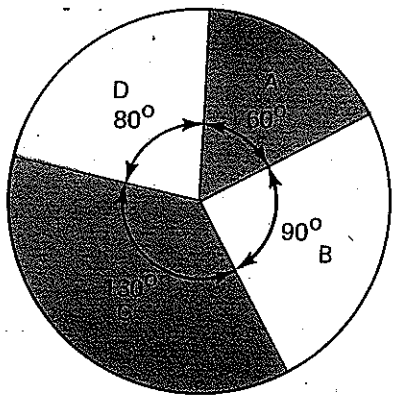
Lesson 7 Circles

NAME _____

A circle and its interior is called a **circular region**.





$$\begin{array}{r} 60^\circ \\ 90^\circ \\ 130^\circ \\ +\,80^\circ \\ \hline 360^\circ \end{array}$$

What is the angle measure of sector B? _____ Sector C? _____ Sector D? _____

The sum of the angle measures of all the sectors in a circular region is _____.

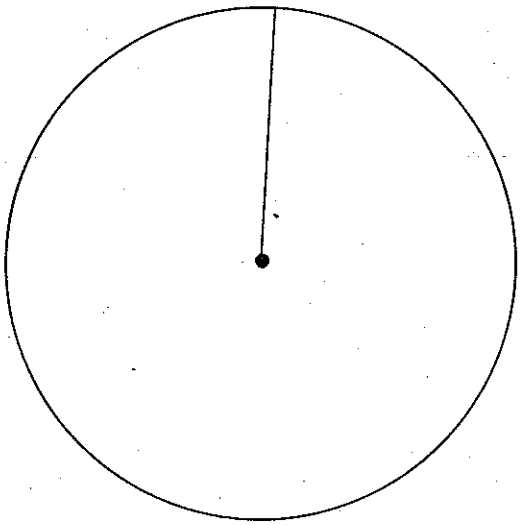
Use a protractor to help you separate each circular region as directed. Label each sector with the proper letter and angle measurement.

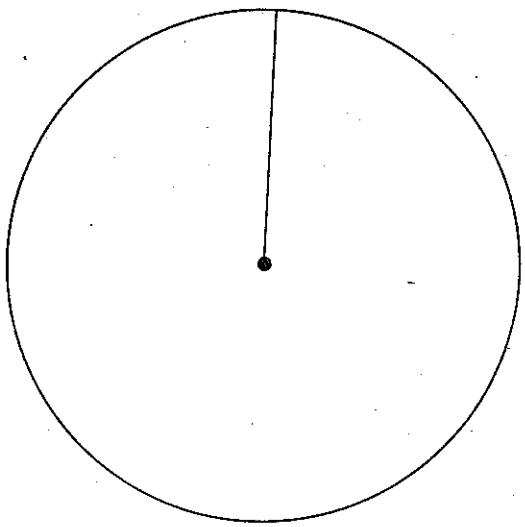
1. 4 sectors with angle measures as follows:

Sector A	30°
Sector B	60°
Sector C	120°
Sector D	150°

2. 5 sectors with angle measures as follows:

Sector A	20°
Sector B	25°
Sector C	45°
Sector D	90°
Sector E	180°



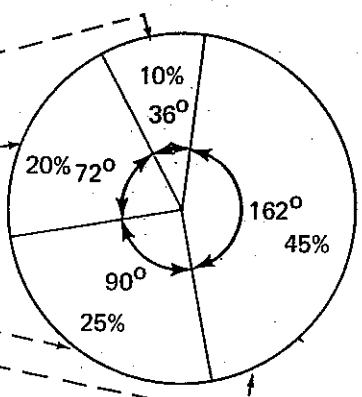


Lesson 8 Circles

NAME _____

Study how the circular region is separated into four sectors representing 10%, 20%, 25%, and 45% of the circular region.

10% of 360° = 36°
20% of 360° = 72°
25% of 360° = 90°
45% of 360° = 162°



10% + 20% + 25% + 45% = _____ % 36° + 72° + 90° + 162° = _____ °

Complete each sentence. Then write the correct angle measurement in the appropriate sectors.

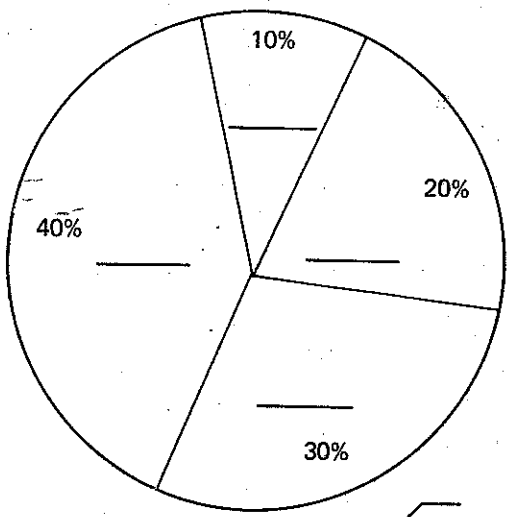
1. 10% of 360° = _____

   20% of 360° = _____

   30% of 360° = _____

   40% of 360° = _____

   10% + 20% + 30% + 40% = _____



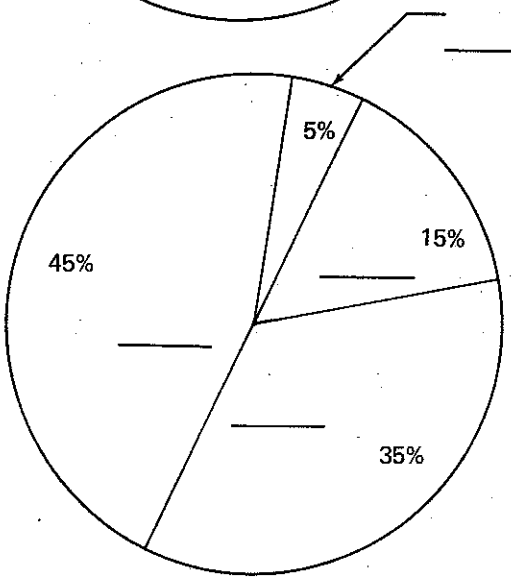
2. 5% of 360° = _____

   15% of 360° = _____

   35% of 360° = _____

   45% of 360° = _____

   5% + 15% + 35% + 45% = _____

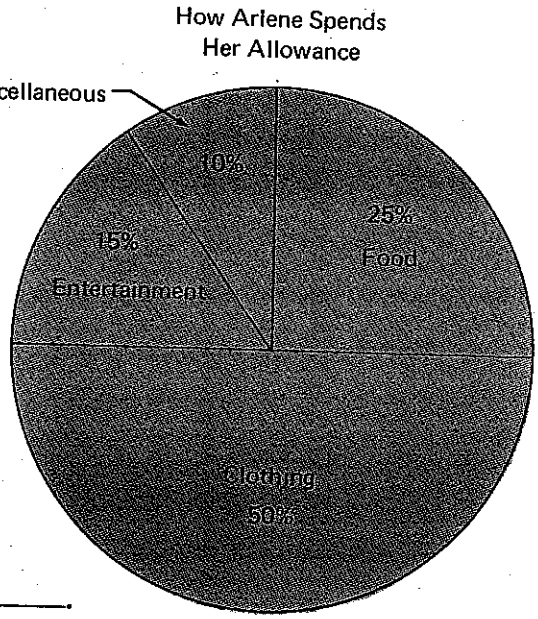


Lesson 9 Circle Graphs

NAME _____

Study how a **circle graph** is used to present the following information in a clear and interesting way.

Arlene spends her allowance as follows: 25% for food, 50% for clothing, 15% for entertainment, and 10% for miscellaneous expenses.



Assume Arlene's allowance is $20.

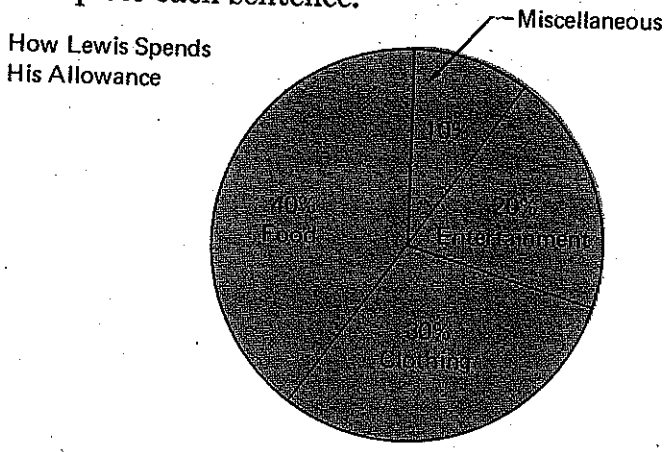
On clothing she would spend 50% of $20 or $ 10 .

On food she would spend 25% of $20 or $ 5 .

On entertainment she would spend 15% of $20 or $_____.

On miscellaneous expenses she would spend 10% of $20 or $_____.

Complete each sentence.



1. Assume Lewis' allowance is $25.

He would spend $_____ for clothing.

He would spend $_____ for food.

He would spend $____ for entertainment.

He would spend $_____ for miscellaneous expenses.

2. Assume Mr. Adams' net income is $9000.

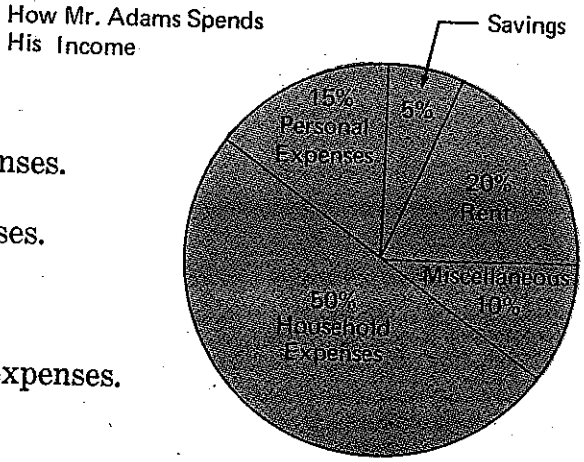
He would spend $_____ for rent.

He would spend $_____ for household expenses.

He would spend $_____ for personal expenses.

He would save $_____.

He would spend $_____ for miscellaneous expenses.



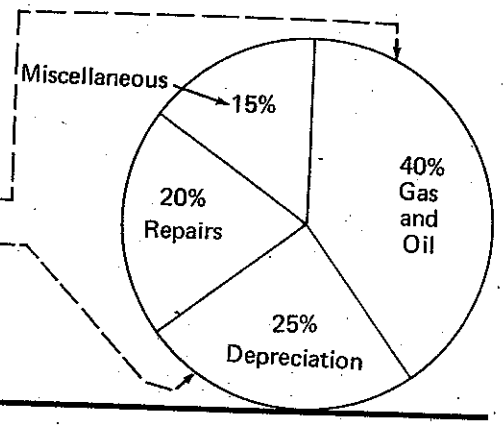
NAME _____

Lesson 10 Circle Graphs

Study how the information in the table can be presented on a circle graph.

Distribution of Each Auto Expense Dollar	
Item	*Per cent*
Gas and Oil	40%
Depreciation	25%
Repairs	20%
Miscellaneous	15%

40% of 360° = 144°
25% of 360° = 90°
20% of 360° = _____
15% of 360° = _____

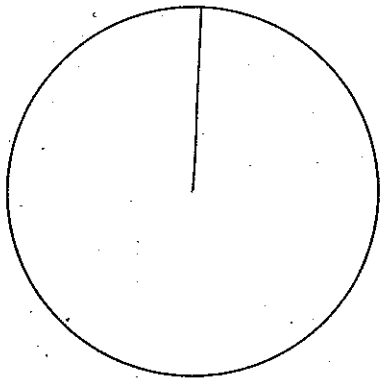


Use the information in each table to help you complete each circle graph.

1.

Distribution of Each Income Dollar	
Expense	*Per cent*
Rent	30%
Personal	20%
Household	35%
Miscellaneous	15%

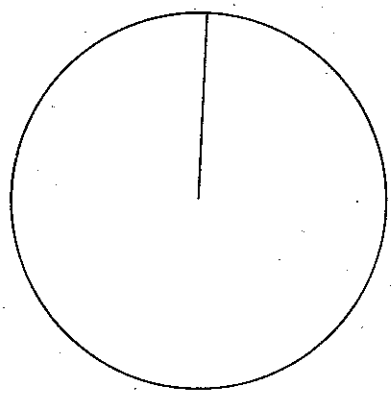
30% of 360° = _____
20% of 360° = _____
35% of 360° = _____
15% of 360° = _____



2.

Distribution of Activities on an Average School Day	
Activity	*Per cent*
Sleeping	30%
School	25%
Eating	10%
Recreation	20%
Miscellaneous	15%

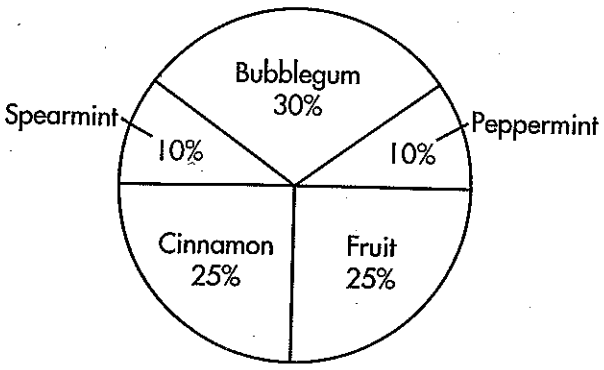
30% of 360° = _____
25% of 360° = _____
10% of 360° = _____
20% of 360° = _____
15% of 360° = _____



NAME _____

Lesson 9.4 Circle Graphs

A **circle graph** shows the relationship of parts to a whole. The circle is divided into sectors which add up to 100%. The sectors are determined by the central angles, and the sum of all those angles is 360°.



Favorite Gum Flavor

This circle graph shows the favorite gum flavor of 400 people. The sectors show the percent who prefer each flavor.

Use the circle graph above to answer each question.

1. Which flavor is preferred by the most people? _____
2. How many people prefer spearmint? _____
3. How many people prefer cinnamon? _____
4. Which flavor is preferred by the same number of people who prefer cinnamon? _____
5. Which two flavors combined account for exactly half of the people? _____
6. How many people prefer bubblegum? _____
7. What is the measure of the angle for the peppermint sector of the graph? _____
8. What is the measure of the angle for the fruit sector of the graph? _____
9. What is the measure of the angle for the bubblegum sector of the graph? _____