

# Algebra/Geometry Institute Summer 2003

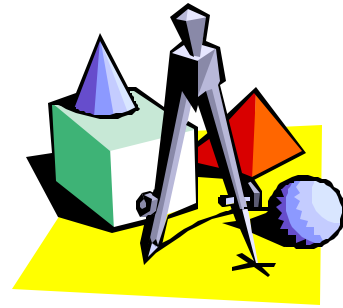
## Lesson 1

**Faculty Name:** Collis L. Grisby

**School:** Shelby Middle School

**City:** Shelby, Ms

**Grade Level:** 6th



### 1 Teaching objective(s)

- ✚ The students will learn to read and interpret circle graphs using percents

### 2 Instructional Activities

- ✚ The lesson will start with a brief review on graphs and percents, which includes the definition that a graph is a more visual representation of data. The class will be asked to name the different types of graphs already studied this year.

Questions that may be asked of the students:

1. What type of graph uses tally marks?
2. What type of graph is used to show the change and direction of change over time?
3. What type of graph is used to compare the frequency of the amount in a category or class?
4. What type of graph the use pictures?

- ✚ Once answered the students will be introduced to a circle graph that is displayed on an easel stand next to the board. The graph will then be read and discussed as a class to ensure that everyone understands all the components and the value of each percent that goes along with the graph. (*Attachment #1*)

- ✚ The students are then placed in groups of two to complete an assignment from the overhead concerning the number of students that attends high school sporting events during the school year. This graph will be used to answer five questions that are written on the dry easel board. (*Attachment #2*)

### 3 Materials and Resources

- ✚ Transparencies, overhead projector, dry easel board, easel stand, paper, handouts, transparency pens, and dry easel pens.

### 4 Assessment

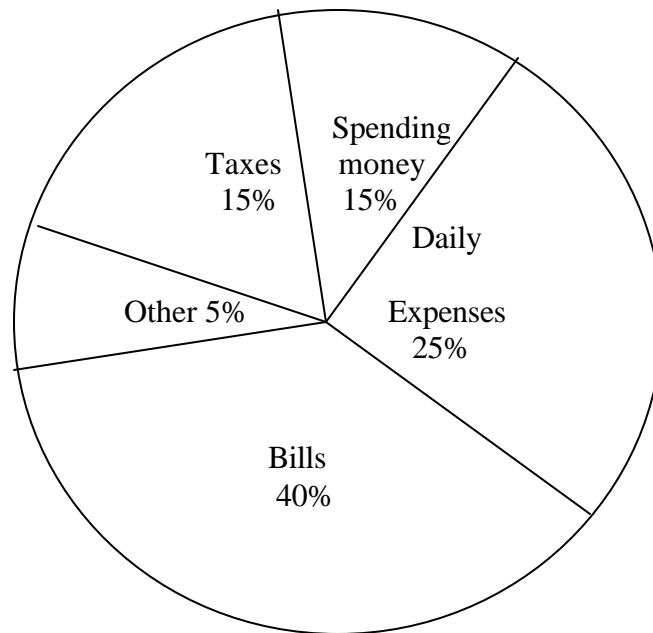
- ✚ Oral and written responses, class participation, and graded work (group work).

### 5 Enrichment

- ✚ The students will complete a group project that consists of a survey that must be completed by members of the sixth grade class. The students will be paired with each pair required to ask at least 60 other sixth grade students to respond to the question on the survey. Once the survey is complete, the students are to make a frequency table, which will be used as an introduction to the construction of a circle graph. (**Attachment 3**)

## *Attachment 1*

### **Monthly Distribution Report**



The students analyze a budget using this circle graph.

Discussion questions that may be used in class:

- The monthly income for the Adams family is \$2,500
- Which monthly distribution takes the most?
- What is the total percentage of this graph?
- What is the relationship between the total percentage and total income?
- What two distributions require the same amount?
- How much of the monthly income is spent on taxes?
- How much of the monthly income is spent on daily expenses?
- How much of the monthly income could be spent on recreational activities?



**Attachment 2**

Name \_\_\_\_\_ Date \_\_\_\_\_ Score \_\_\_\_\_

**Answer each of the following questions using the graph provided.**

1. Which sporting event did the highest percent of the students attend?

\_\_\_\_\_

2. Which sporting event did 25% of the students attend?

\_\_\_\_\_

3. Which sporting event did the least percent of the students attend?

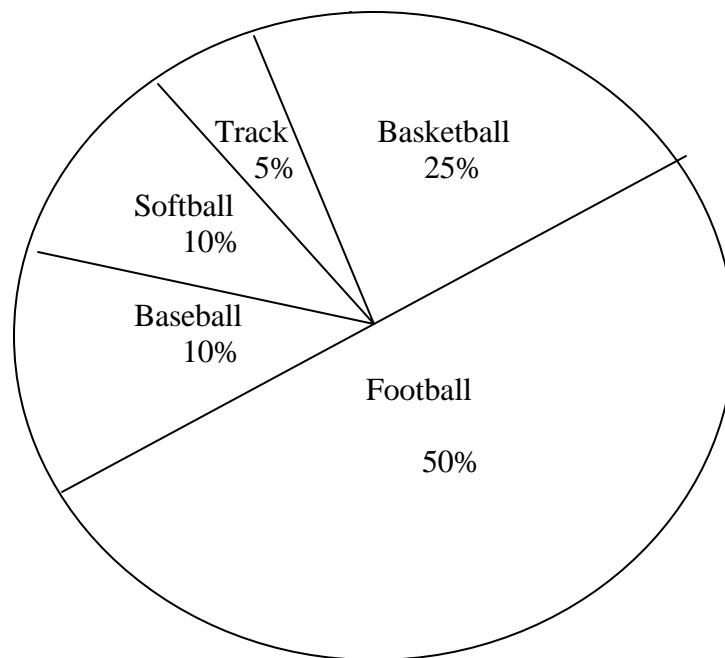
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4. What percentage of the students attended the softball games?

\_\_\_\_\_

5. What is the total percentage of the circle graph?

\_\_\_\_\_



### **Attachment 3**

The members of the Sixth Grade class are conducting a survey to learn the difference between the number of students that walk, drive, or ride the bus too and from school each day. Your cooperation is greatly appreciated.

**Please check one of the following lines.**

\_\_\_\_\_ **Walk**

\_\_\_\_\_ **Ride with parent or by bicycle**

\_\_\_\_\_ **Bus**

