

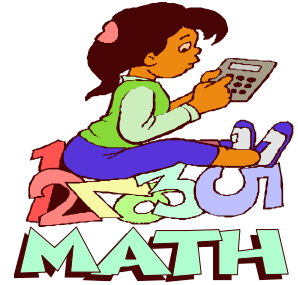
Algebra/Geometry Institute Summer 2005

“RATIOS”

Faculty Name: Sandra H. Jones

School: Weddington Math, Science, and Technology Academy

Grade Level: 6th



Teaching objective(s): Demonstrate different ways to express ratios.

***Competency:** Determine multiple relationships among ratios, proportions, decimal numbers, percents, and fractions.

Instructional Activities:

Teacher Will:

1. Introduce lesson by asking the question: “How many students are wearing white gym shoes? Black gym shoes?” Determine the number by a show of hands and place numbers on transparency.
2. Discuss results by asking, “ How can we write this comparison?”
3. Discuss student responses.
4. Begin lesson by writing the word “ratio” on a transparency, asking students how many are familiar with the term. Listen to their responses.
5. Define ratio. (a comparison of two numbers or values)
6. Next, allow students to create a transparency of the different ways ratios are used in everyday life to compare numbers.
 - Ex: 1. Doctors compare the height of their patients to their weight.
 2. Compare the number of Superintendent’s Scholars in sixth grade to the number of Principal’s List Scholars in sixth grade.
 3. Compare the number of free throws to number of free throws attempted in the schools last home game.
 4. Compare the actual number of 3-point shots to the attempted number of 3-points shots.
 5. When purchasing a baseball bat, compare the height of the batter to the length.
7. Allow students to give different examples until you feel that they understand how to use ratios for comparisons.
8. Review definition of ratio.
9. Explain and model the different ways ratios can be expressed: with colons, with the word “to”, and as a fraction.
10. Explain to students that whatever is mentioned first in their comparison, must be represented by the first number.
 - *Ex: When we compared the gym shoes, since white was mentioned first, we must write the number that represents the white gym shoes first.
11. Also explain to students that ratios may be written in simplest form if desired.

12. Review how to simplify fractions.
13. Students will use information from student created transparency(#6) to write ratios in different ways.
14. After discussing student created ratios, pair students off to complete handout #1. (See Attachment)
15. Homework : Write 5 ratios comparing people or objects in your home or extended family. Ex: # of cars and trucks; # of brothers and sisters

Materials and Resources

Overhead Projector
Transparency
Teacher-Created Handout

Assessment

1. Teacher observation: observe students and assist as they work in pairs to complete handout.
2. Check for 100% accuracy of homework.

Handout #1

Ratios

Directions: Write each ratio as a fraction. Do not forget to simplify each ratio, if at all possible.

- 1.) 8 to 10
- 2.) 50 to 100
- 3.) 36:54
- 4.) 20:75
- 5.) 49:84

Directions: Use the chart below to answer the questions.

Greenville Phillies

Starting Pitchers	3
Relief Pitchers	3
Catchers	2
Infielders	4
Outfielders	5

- 6.) What is the ratio of infielders to all pitchers?
- 7.) What is the ratio of outfielders to catchers?
- 8.) What is the ratio of infielders and outfielders to the total team ?