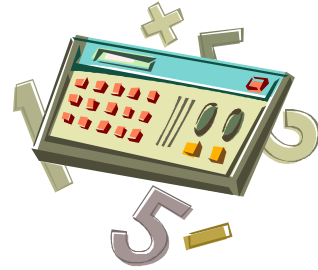


# Algebra/Geometry Institute Summer 2004

## Lesson Plan One

**Faculty Name:** Avis Williams  
**School:** Shelby Middle School  
Shelby, MS 38762  
**Grade Level:** 6



### 1 Teaching objective(s)

The students will discover factors of whole numbers by using number cards.  
The students will identify prime and composite numbers.

### 2 Instructional Activities

- Number the index cards 1 through 24.
- In order around the classroom, give twenty-four students one of the index cards.
- Have each of them stand up and write the number 1 on the back of his or her card. (The front of each index card will have a number from 1 to 24).
- Start with the student holding the “2” card. Have every second student to sit down and write the number 2 on back of his or her card.
- Start with the student holding “3” card. Have every third student to stand up or sit down (depending on whether the student is already sitting or standing) and write the number 3 on the back of his or her card.
- Continue this process for each of the remaining numbers until the twenty-fourth student has stood up or sat down and has written the number on the back of his or her card.
- To help students develop meaning of activity, ask questions like these.
- What are the multiples on the number “2” card?
- What are the factors on the number “2” card?
- What are the multiples on the number “3” card?
- What are the factors on the number “4” card?
- What are the multiples on the number “4” card?
- What are the factors on the number “5” card?
- What are the multiples on the number “5” card?
- What are the factors on the number “6” card?
- What are the factors on the number “8” card?
- What are the multiples on the number “8” card?
- What is the relations between the number on the front and the back of the card? (Ask several to explain.)
- Why do some cards have just two numbers on the back?
- Why do some cards have more than two numbers on the back?
- Each student will tell whether the number that they’re holding is prime or composite.

- Why does the number “1” card have only one factor?

### 3 Materials and Resources

24 index cards

Glencoe Mathematics Applications and Connections Course 2 p. 132

### 4 Assessment

Have students write a paragraph discussing their experience during the exercise of representing factors by standing and sitting.

Have a student to respond to the question, “If a student had to sit and stand several times, what does that indicate about the number on the student’s card?”