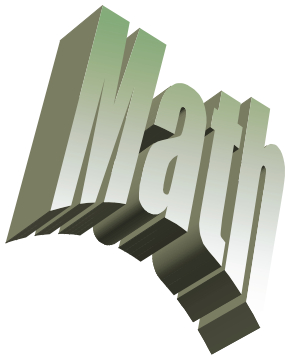
Algebra/Geometry Institute Summer 2005



Number Sense

Faculty Name: Donna Thompson
School: Solomon Middle School
Grade Level: 8th

1 Teaching objective(s)

Students will apply principles of number sense.

2 Instructional Activities

First, students will start with a bell ringer activity. (3-5 minutes)

Bell ringer

1. $5 \times 4 =$ 2. $12 \div 5 =$ 3. $14 - 6 =$ 4. $5^2 + 3 =$

Next, the teacher will review terms such as sum, difference, product, quotient, remainder, less than, greater than, composite, prime, odd, even, multiple, and perfect square.

Place students in groups of 4. Give each group 2 dice and worksheet #2(adapted from Delta RSI 2001 summer institute)

Now the teacher will demonstrate how to play. I would take the dice and roll until I obtained a sum greater than 5 because that is the first concept of the work sheet. If it takes three times, then I put a 3 under player 1. If it takes more than 6 times, I just put a 6 and let the next player go.

Now let the students play the game. (30 minutes) While they play, they will be remembering concepts and applying them.

When all groups have finished, discuss why some were more difficult to roll than others. This can lead into a probability discussion, if you choose.

Extensions: 1) Use green and red dice for numerator and denominator to change the game into a fraction one. (You will have to adjust the worksheet to represent fractional answers) 2) Use green and red dice for positive and negative numbers to change it to an integer game.

Homework: Let the students design a game. Tell them to use the same format as mine; just change the problems for each hole.

3 Materials and Resources

Enough dice for each group to have 2
Pencil
Worksheet #2

4 Assessment

Observation
Concepts will be on the unit test.

Worksheet #2

Holes	Player 1	Player 2	Player 3	Player 4
Sum > 5				
Difference =3				
Product =6				
Quotient =1				
Quotient>1				
Prime Product				
Odd Sum				
Quotient with remainder of 1				
Sum = Multiple of 3				
Sum = Perfect Square				
Total				

Notes: Par for each hole is 6.
In golf, the lowest score wins!