

Concepts of Divisors

1. Build as many rectangles as possible with 24 pennies. You must use all of the pennies and they must make a rectangle. Record the dimensions of each rectangle.

24:	Length	
	Width	

2. Build as many rectangles as possible with 36 pennies. You must use all of the pennies and they must make a rectangle. Record the dimensions of each rectangle.

36:	Length	
	Width	

3. Jocelyn is a quilter. A Museum has asked Jocelyn to make a very large quilt for the entry way. She has a 24' by 36" piece of cloth. She wants to cut out square of equal size and use all the material. Use the samples of cloth on the next page to find different sized squares that he can use. See the example of using a 2' x 2' square. Notice that the squares are all equal in size and take up the entire cloth with nothing left over. List all of the possibilities.

4. Go back to question #1 and #2. Circle the lengths and widths that 36 and 24 have in common. Describe the relationship between these numbers and the size of the squares that you found in question #3.

5. Greatest Common Divisor

- A. Identify the Greatest Common Divisor of 24 and 36.
- B. In your own words, define Greatest Common Divisor.
(You might want to include an example)

6. Find the greatest common divisor of the following pairs of numbers. After you have found it one way, check it with another way.

- A. 12 and 18
- B. 14 and 35
- C. 8 and 15

Pick 2 numbers of your own to explore.