

# Dynamic Number Grids— Multiples and Patterns

Name: \_\_\_\_\_

You will explore number grids and patterns.

## EXPLORE

1. In each grid:

Shade the multiples of 3 one color.

Shade the multiples of 5 a different color.

What is the least common multiple of 3 and 5?

1	2	3
4	5	6
7	8	9
10	11	12
13	14	15

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20

What is the least common multiple of 3 and 5? \_\_\_\_\_

2. In each grid:

Shade the multiples of 2 one color.

Shade the multiples of 6 a different color.

Find the least common multiple of 2 and 6.

1	2
3	4
5	6
7	8
9	10
11	12

1	2	3
4	5	6
7	8	9
10	11	12
13	14	15

1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24

What is the least common multiple of 2 and 6? \_\_\_\_\_

3. Open **Dynamic Number Grids--Multiples and Patterns.gsp**.

Go to the “Grid” Page.

Change the value of *count by (orange)* to 2.

Change the value of *count by (blue)* to 5.

Press *Show Both Multiples*.

- a. List three common multiples of 2 and 5.
- b. Enter the least common multiple of 2 and 5.
- c. Find a value for *columns* to make one column with *all the common multiples of 2 and 5*, and *no other numbers*.
- d. Complete the other rows of the table.

Count by (orange)	Count by (blue)	Three Common Multiples	Least Common Multiple	How Many Columns?
2	5			
3	6			
5	3			
4	3			
4	6			
3	1			
5	10			
8	12			

4. How can you predict the number of columns for any two numbers? Explain your reasoning.