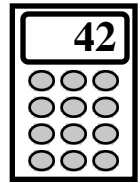


Make Your Own Multiplication Chart



Grade Level:

- K - 2
- 3 - 5
- 6 - 8

CD-ROM Files:

- 42MultiplicationChart

Overview:

In this activity, students use formulas in a spreadsheet to create their own multiplication chart and then will add shading to all of the even numbers. The students will then develop their own theories as to why there are more even numbers than odd numbers in their chart.

Software / Resources:

- Microsoft Excel

NCTM Standards:

Instructional programs from prekindergarten through grade 12 should enable all students to--

- understand numbers, ways of representing numbers, relationships among numbers, and number systems. (Numbers and Operations)
- build new mathematical knowledge through problem solving. (Problem Solving)

The Teacher's Role:

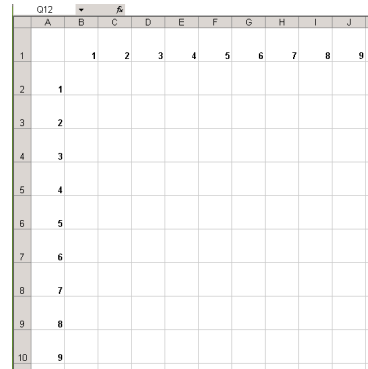
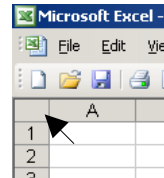
1. The teacher will demonstrate how to change the size of the columns and rows of the spreadsheet so that the cells are square.
2. The teacher will show how to add the "labels" to the top and side of the multiplication chart.
3. The teacher will assist the students as they enter formulas in the first column.
4. The teacher will show students how to fill the formulas across the table.
5. The teacher will show students how to format the cells and how to add shading to the cells with even numbers.
6. The teacher will challenge the students to develop their own theory as to why there are more even numbers than odd numbers in their chart.



Student Instructions:

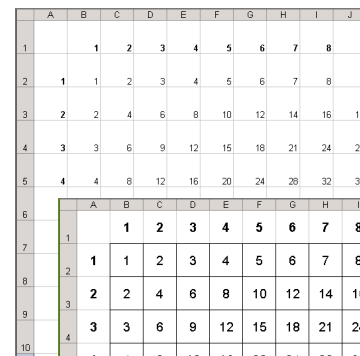
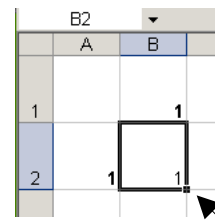
Getting Ready:

1. Open a new blank Microsoft Excel spreadsheet.
2. Click the upper left corner of the spreadsheet to select all of the cells. (Or pull down the Edit menu to Select All.)
3. Change the columns and rows:
 Mac - Width = 6; Height = 40
 Windows - Width = 50 pixels; Height = 50 pixels
4. Starting in Cell B1, enter the numbers 1 through 9 across to the right.
5. Starting in Cell A2, enter the numbers 1 through 9 downward.
6. Highlight the top row and change the font style to Bold.
7. Highlight the left column and change the font style to Bold.



Entering / Filling Formulas:

1. Enter the following formulas:
 B2 =B1*1
 B3 =B1*2
 B4 =B1*3
 B5 =B1*4
 B6 =B1*5
 B7 =B1*6
 B8 =B1*7
 B9 =B1*8
 B10 =B1*9
2. Click to select Cell B2.
3. Grab the bottom right corner and drag across to Cell J2.
 This will fill the formula across the top row.
4. Repeat Steps 2 & 3 to fill across the remaining rows.



Formatting the Cells:

1. Click and drag to select all cells with data. (A1 through J10)
2. Pull down the Format Menu to Cells.
3. Click the Alignment tab; change the Horizontal and Vertical alignment to Center.
4. Click the Font tab; change the font size to 14 pt.
5. Click and drag to select cells B2 through J10.
6. Use the Borders tool in the formatting toolbar to turn on All Borders.
7. Hold the Control key (Win) or the Command key (Mac) and click to select all of the EVEN numbers in the table.
8. Change the color of any cells with even numbers to yellow.

	A	B	C	D	E	F	G	H	I	J
1		1	2	3	4	5	6	7	8	9
2	1	1	2	3	4	5	6	7	8	9
3	2	2	4	6	8	10	12	14	16	18
4	3	3	6	9	12	15	18	21	24	27
5	4	4	8	12	16	20	24	28	32	36
6	5	5	10	15	20	25	30	35	40	45
7	6	6	12	18	24	30	36	42	48	54
8	7	7	14	21	28	35	42	49	56	63
9	8	8	16	24	32	40	48	56	64	72
10	9	9	18	27	36	45	54	63	72	81

Your Challenge:

1. Are there more even or odd numbers in the table?
2. Explain why.