

Pascal Triangles Used with Other MODS....can lead to a better understanding of number patterns as well as form unique designs. The creation of patterns is NOT limited to the operation of addition.

MOD 3 ADDITION:

Mod 3 is very similar to base three as shown in the table at right. To create a design, use different colors to shade in all of the zeros, ones and twos.

+	0	1	2
0	0	1	2
1	1	2	0
2	2	0	1

+	0	1	2	3
0				
1				
2				
3				

MOD 4 ADDITION:

Mod 4 follows the same general pattern as Mods 1 and 2. Try filling in the addition grid at right on your own.

MOD 4 MULTIPLICATION:

All four operations can be used with any of the mods. Again, it is much like using a base 4 number system. Here, 3×3 is the decimal-numeral 9, but that becomes a 1 in MOD 4 since $9 \div 4 = 2$, remainder 1. Try to complete the square on your own.

X	0	1	2	3
0				
1				
2				
3				

Several blank worksheets are provided to help you experiment with different mods and patterns. Notice the patterns which develop by shading in different colors for different values