Your Name: _____ **Room:** _____

Grade: _____ **Teacher:** _____

Montlake Math Challenge
Montlake Elementary School
January 17, 2008

Instructions: We will be talking about Pascal's triangle for the next few weeks. This week's worksheet will help you become familiar with Pascal's triangle. Work in groups to complete the following problems.

HOMEWORK: If you don't finish the worksheet, complete it for our meeting next week. Be sure to bring this worksheet to our next meeting.
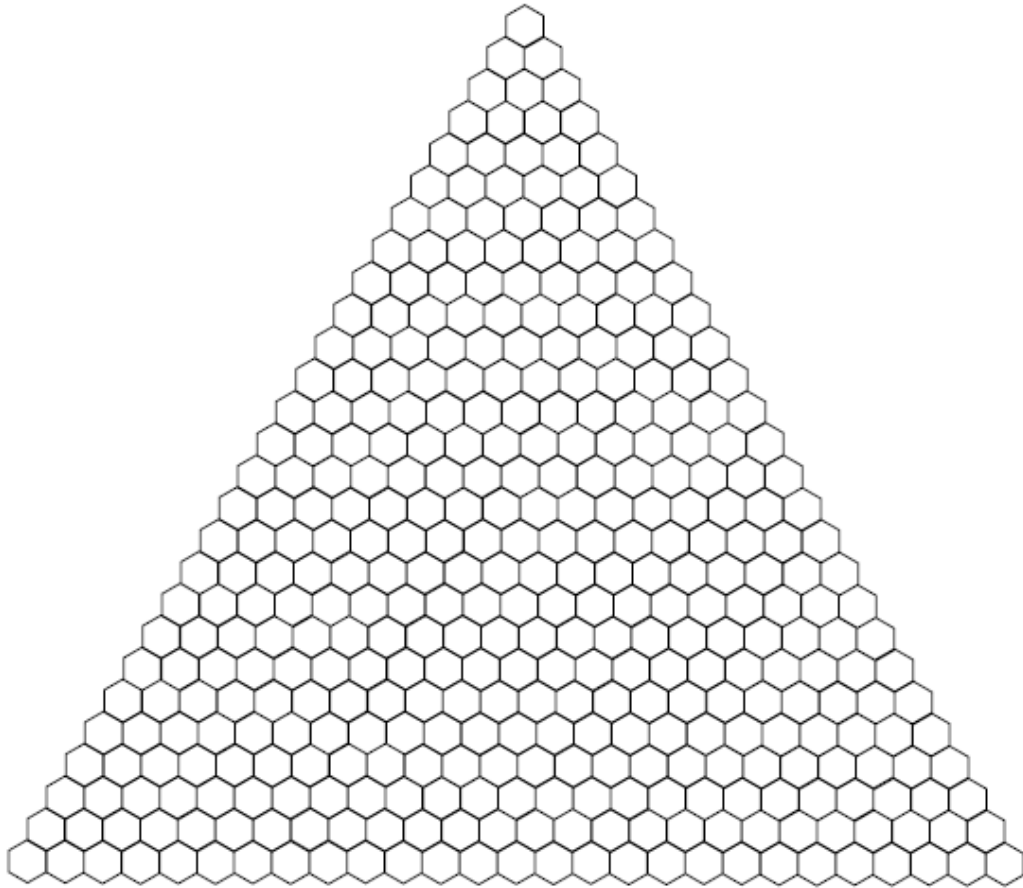
If you are interested in participating in the Math is Cool contest, make sure you talk to your parents and return the Math is Cool information letter by February 7.

Problem 0: Look at the following table.

	EVEN	ODD
EVEN		
ODD		

Fill in the table. In each square, write what type of number (even or odd) you will get if you add the type of number at the top of its column to the type of number at the left of its row.
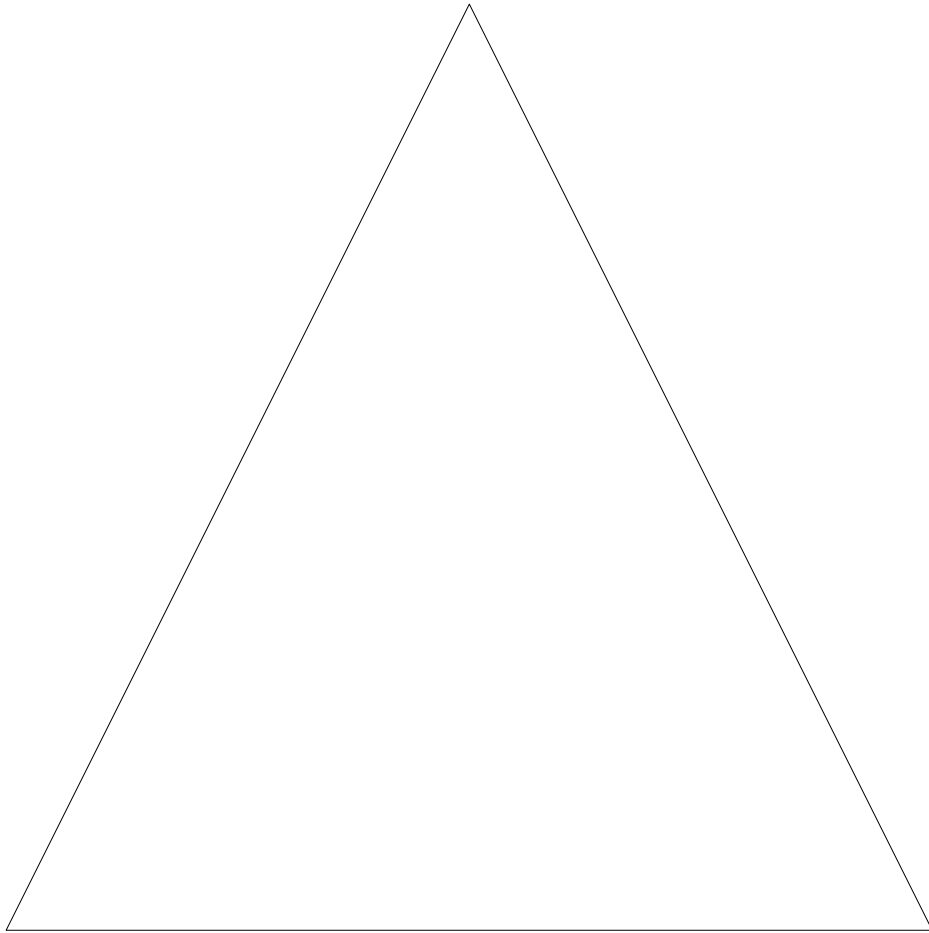
Problem 1: Fill in Pascal's triangle but this time only use 0's and 1's. Put a 0 in a hexagon if the corresponding entry in Pascal's triangle is even. Put a one in a hexagon if the corresponding entry in Pascal's triangle is odd.

When you've finished, shade all the hexagons with a 0 in them.

Problem 2: Look at the triangle pictured below. Perform the following steps:
1. Draw a dot at the midpoint of each of its three sides.
2. Connect these three points to make a smaller triangle inside the original one.

Now you have a picture with four triangles. For each of these triangles, repeat steps 1 and 2 above. Continue to repeat this process four more times.