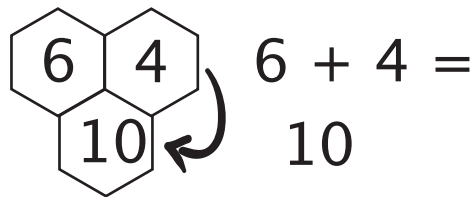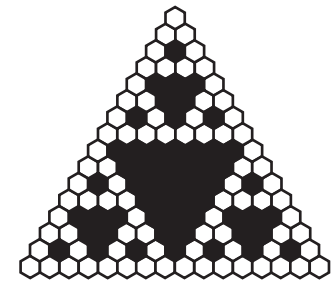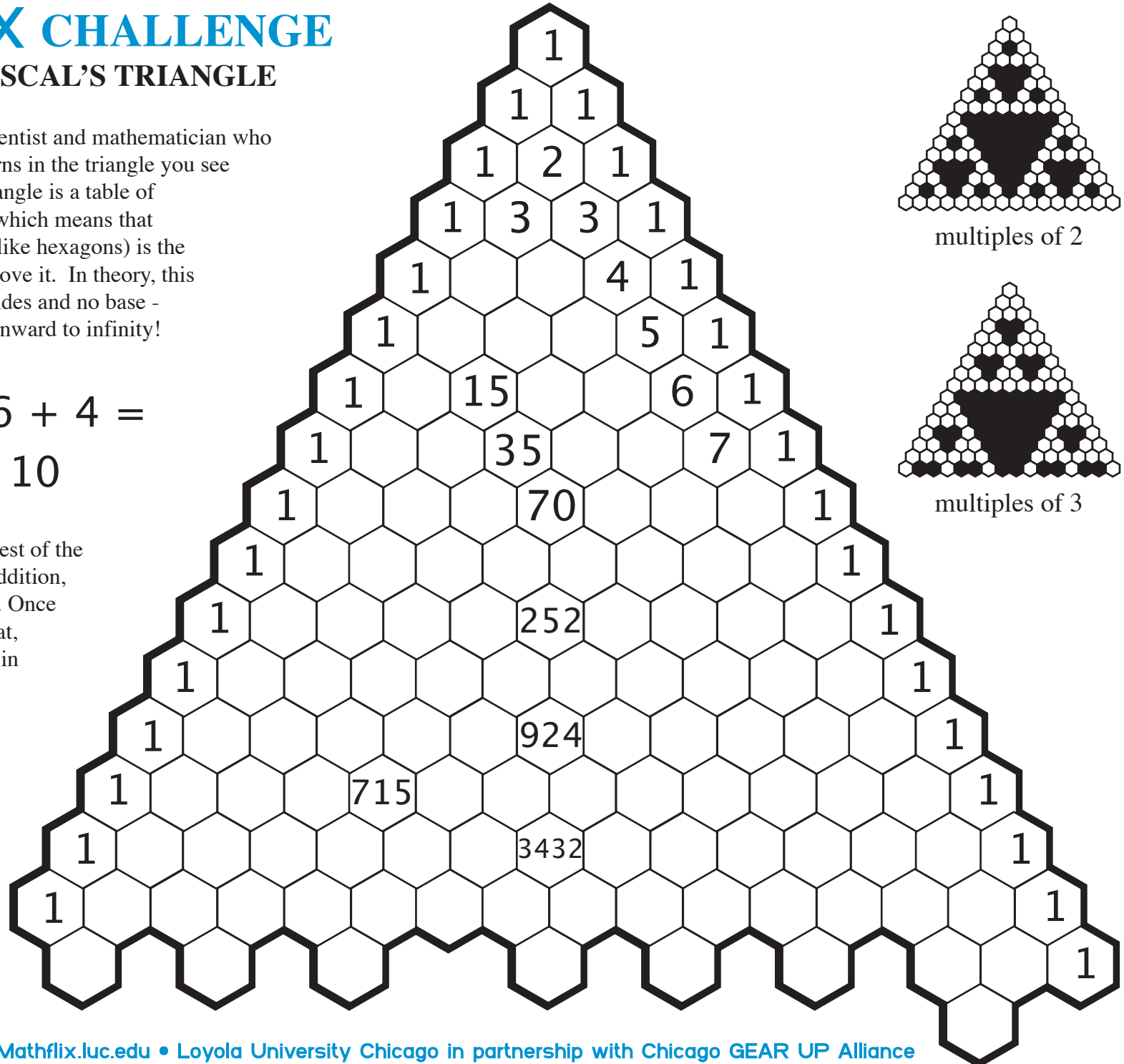# MathFLIX CHALLENGE

Patterns: PASCAL'S TRIANGLE

Blaise Pascal was a scientist and mathematician who found interesting patterns in the triangle you see right here. Pascal's triangle is a table of binomial coefficients, which means that each cell (here shaped like hexagons) is the sum of the two cells above it. In theory, this triangle has only two sides and no base - because it extends downward to infinity!

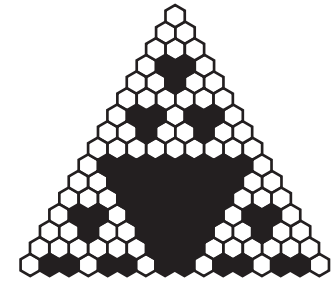$$6 \quad 4 \qquad 6 + 4 =$$
$$10 \qquad\qquad 10$$

You can complete the rest of the triangle using simple addition, as demonstrated above. Once you have completed that, try your hand at filling in some patterns. Choose either multiples of 4, or multiples of 5, and color the cells that hold those multiples.

Do you think all multiples will form a pattern?

Pascal's triangle values shown:
1
1 1
1 2 1
1 3 3 1
1 4 1
1 5 1
1 15 6 1
1 35 7 1
1 70 1
1 1
1 252 1
1 1
1 924 1
1 715 1
1 3432 1
1 1
1 1

multiples of 2

multiples of 3