1145-VS-280 **Philip K Hotchkiss*** (`photchkiss@westfield.ma.edu`), Department of Mathematics, Westfield State University, Westfield, MA 01085. *Generalized Rascal Triangles.*

In 2010, three middle school students, Alif Anggaro, Eddy, Liu and Angus, Tulloch introduced the *Rascal Triangle*,

$$\begin{array}{ccccccccccc} & & & & & 1 & & & & & \\ & & & & 1 & & 1 & & & & \\ & & & 1 & & 2 & & 1 & & & \\ & & 1 & & 3 & & 3 & & 1 & & \\ & 1 & & 4 & & 5 & & 4 & & 1 & \\ 1 & & 5 & & 7 & & 7 & & 5 & & 1 \\ & & & & & \vdots & & & & & \end{array}$$

a variation of Pascal's Triangle. Adopting the notation from Anggaro, Liu and Tulloch, the entries in Pascal's Triangle can be determined by the well known formula, $\mathbf{South} = \mathbf{East} + \mathbf{West}$. To construct the Rascal Triangle, Anggaro, Liu and Tulloch used the formula

$$\mathbf{South} = \frac{\mathbf{East} \times \mathbf{West} + \mathbf{1}}{\mathbf{North}}.$$

In 2015, students in a Mathematics for Liberal Arts (MLA) class taught by my colleague, Julian Fleron, discovered that the formula

$$\mathbf{South} = \mathbf{East} + \mathbf{West} + \mathbf{1} - \mathbf{North}$$

also generates the Rascal Triangle.

In this talk we will discuss examples and properties of number triangles (many of which were discovered by our MLA students) that can be generated by a variation of one of these formulas. (Received August 28, 2018)