1163-L5-875   **Rachel A Perrier*** (`rachel.perrier@wsu.edu`) and **Jessica M Dickson** (`jmdickson@wsu.edu`). *Dots-and-Polygons.*

Dots-and-Boxes is a popular children's game whose winning strategies have been studied by Berlekamp, Conway, Guy, and others. We consider two variations, Dots-and-Triangles and Dots-and-Polygons, both of which utilize the same lattice game board structure as Dots-and-Boxes. The nature of these variations along with this lattice structure lends itself to applying Pick's theorem to calculate claimed area. Several strategies similar to those studied in Dots-and-Boxes are used to analyze these new variations. (Received September 13, 2020)