Michigan Math Club

Thursday at 4pm in the Nesbitt Room
Free Pizza and Pop

Counting Dots

Jack Jeffries

Abstract for 30 March

In this talk, we will look at a simple sounding question: how many dots — integer valued points — are there in a polygon? Of course, the answer depends very much on the polygon, but we can say some surprisingly strong things. After deciding on a good notion of a higher dimensional polygon, we'll explore some of the results about counting dots in higher dimensions. We will put this dot-counting theory to use to get some intuition for higher dimensions, and to unearth a magical fact that doesn't look geometric at all!