

# On Generalizing Triangular Numbers to the $n$ th Dimension

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## Abstract

The triangular number  $T_n$ , a figurate number, can be represented geometrically as a triangular grid of points, just as a square number can be represented as a square grid of points.  $T_n$  is given by the diophantine equation  $T_n = \frac{n(n+1)}{2} = \binom{n+1}{2}$