Pick’s theorem is one of those theorems in mathematics which seems too simple to be true.  Take any polygon and lay it on a lattice.  (A lattice is a grid of points where every point has whole number (integer) coordinates.)  According to Pick’s Theorem all you need to do to find the area of a polygon is to count the points on the interior and on the boundary of the shape.

Pick’s Theorem then states that:

Area= i + \frac{b}{2}-1

(i stands for the number of points in the interior of the shape, b stands for the number of points on the boundary of the shape.)

Take the polygon below as an example.  In this polygon i=7 and b=8.  According to Pick’s Theorem, Area = 7+\frac{8}{2}-1=10 which is the correct area of the polygon.