Polygon Triangulation Problem

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Polygon Triangulation problem is one of the problem in combinatorial mathematics. The problem is that, in how many ways can a convex polygon with n+2 sides (labelled 0,1,2,…,n) be divided into triangles by non-intersecting diagonals. When we have n+1 sided polygon, it can be separated into triangles by non-intersecting diagonal in many ways. Our aim to find formula in how many ways we can do this. The main purpose of this project is to find a mathematical model of polygon triangulation and the explicit formula of how many ways can we use to have different triangle from n+2 sided polygon. □