Polygon Triangulation
## Math 282 Computational Geometry

Explore the following questions.

1. Does every polygon have a triangulation?

2. If P is a polygon with n vertices, how many triangles are required to triangulate P?

3. How many distinct triangulations are possible for a polygon of n vertices?

State your answers as conjectures, supported by your observations. If you can prove your conjecture, then you have a theorem.

Here are some sample polygons. You should also consider other polygons of your choice.
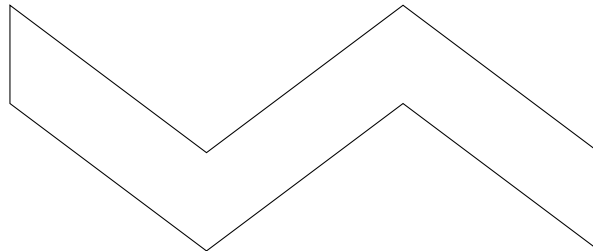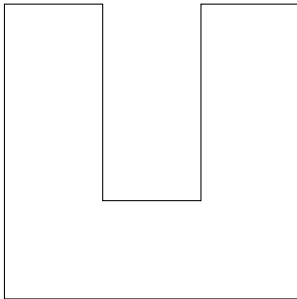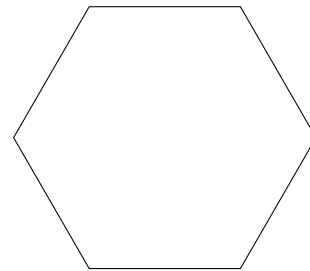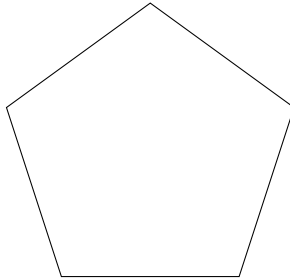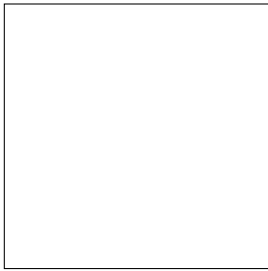
Extension: Now consider polygons that are allowed to have holes. How do your answers to the previous questions change?

For example, the following polygon-with-hole has 8 vertices and 1 hole.