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Triangulation

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- Ear Candidate

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Induction

❖ [Inductive base]

1) The minimal simple polygons are triangles (without holes), and

2) they are themselves triangulations

❖ [Inductive assumption]

Each simple polygon smaller than P admits a triangulation

Convex Vertex

- Claim: P has at least one convex vertex on its outer boundary
- In fact, the *est-then-*most one should be such a vertex
- An alternative way to see this is
  to observe that
    all the n internal angles
      along the outer boundary
        sum up to $(n-2)\pi$
- Let J be such a convex vertex