

# Triangulation

Art Gallery Theorem

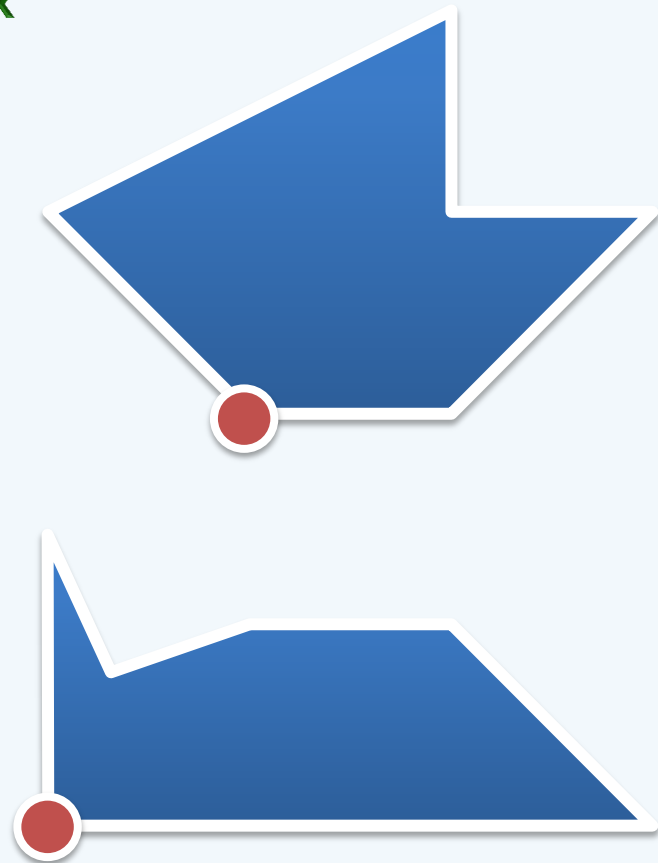
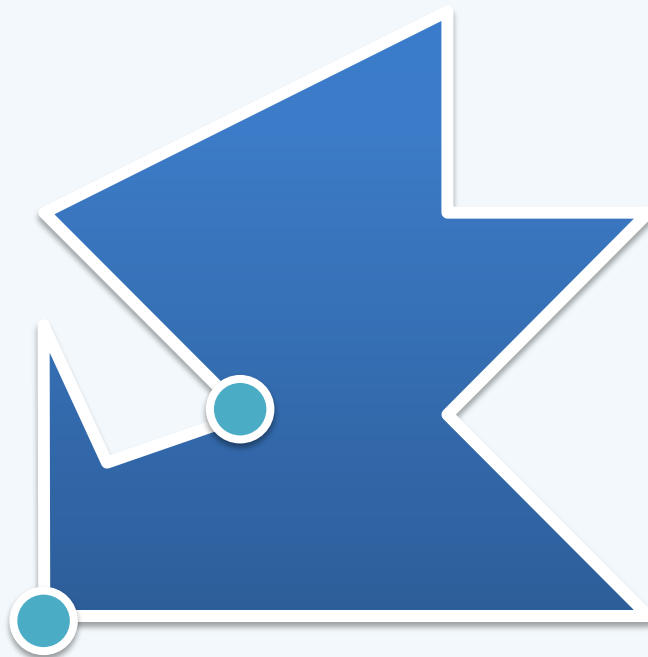
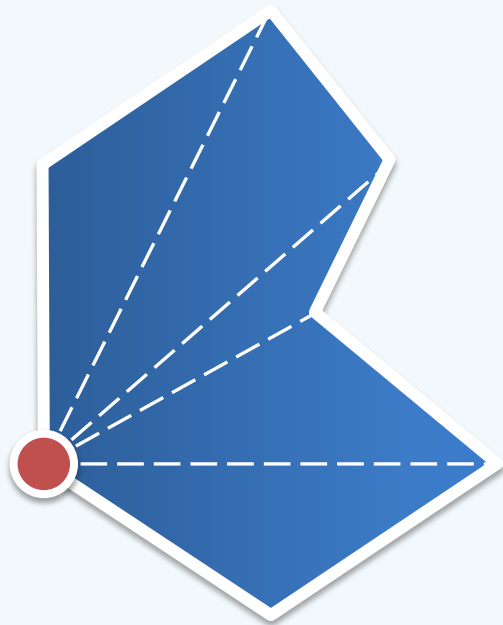
- Sufficiency by Fan Decomposition

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## Fan Decomposition

- ❖ **Fan**: a star-shaped polygon with a **kernel** vertex
- ❖ Each fan can be covered by one guard



- ❖ Induction: every  $n$ -gon can be partitioned into  $\leq \lfloor n/3 \rfloor$  fans