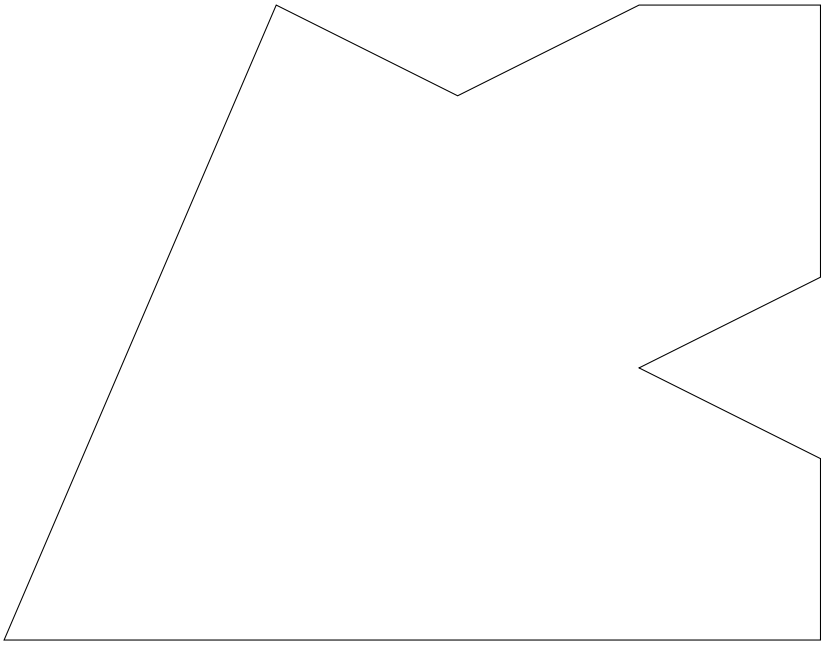
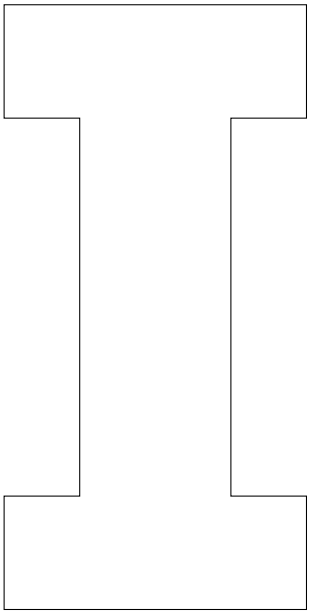
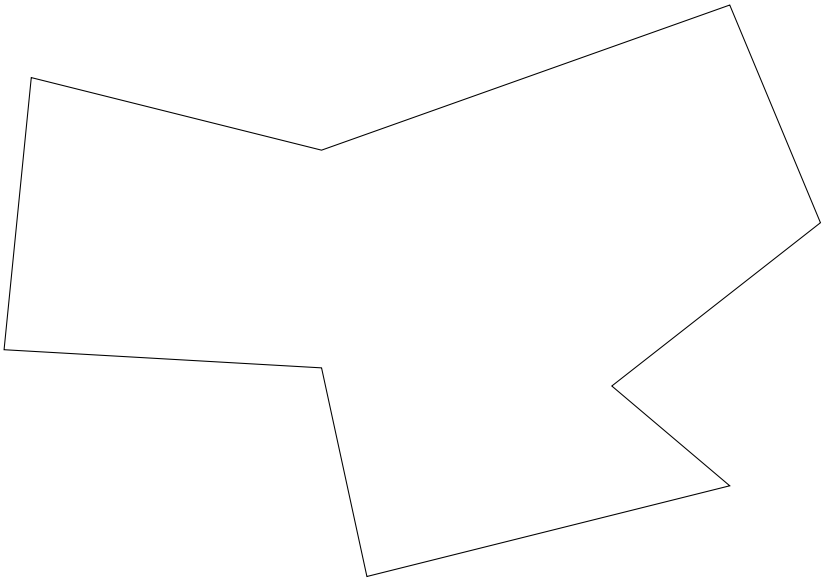
Straight Skeleton

MATH 261 Computational Geometry

1. Sketch the straight skeleton of each of the following polygons.







2. Design an algorithm to compute the straight skeleton of a polygon. What is the computational complexity of your algorithm?

3. Is every geometric tree the straight skeleton of some polygon? Can a geometric tree be the straight skeleton of multiple different polygons?

4. Extend the concept of straight skeleton to polygons with holes. Draw some examples. How does your algorithm adapt to this new setting?