

Today, you will complete Euclid Book IV, Proposition 4 and 5.

**Euclid Proposition IV.4.** *To inscribe a circle in a given triangle.*

**Problem 1.** Using a straightedge, draw a large triangle below. Then, using a straightedge and compass, construct a circle inscribed in your triangle. You may estimate midpoints, perpendiculars, and angle bisectors. Write every step of your construction.

**Euclid Proposition IV.5.** *To circumscribe a circle about a given triangle.*

**Problem 2.** Using a straightedge, draw a smaller triangle below. Then, using a straightedge and compass, construct a circle which circumscribes your triangle. You may estimate midpoints, perpendiculars, and angle bisectors. Write every step of your construction.