Grab your computer and get ready to work! We have a lot to do today so we need to get started quickly.
Jigsaw

There are 4 parts to what we are doing today so each group will investigate a different part for ~20 minutes. Then we will rearrange into groups containing a person from each section. You will have 10 minutes to teach each other what your group learned.

We will spend the last 10 minutes reviewing it together to get all of the pieces.
**Angle Bisector Concurrency Conjecture:** The three angle bisectors of a triangle meet at a point (are concurrent).

**Incenter:** the point at which 3 angle bisectors of a triangle intersect.

**Incenter Conjecture:** the incenter is equidistant from the sides of a triangle

*Possible locations of Incenter: always inside the triangle*

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**Perpendicular Bisector Concurrency Conjecture:** The three perpendicular bisectors of a triangle are concurrent.

**Circumcenter:** the point at which 3 perpendicular bisectors of a triangle meet

**Circumcenter Conjecture:** the circumcenter is equidistant from the vertices of a triangle

*Possible locations of circumcenter: inside (acute), outside (obtuse), on (right)*

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**Altitude Concurrency Conjecture:** the three altitudes of a triangle are concurrent

**Orthocenter:** the point at which the 3 altitudes of a triangle intersect

*Possible locations of orthocenter: inside (acute), outside (obtuse), on (right)*

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**Median Concurrency Conjecture:** The three medians of a triangle are concurrent.

**Centroid:** The point of concurrency of the medians of a triangle

**Centroid Conjecture:** The centroid of a triangle divides each median into two parts so that the distance from the centroid to the vertex is **twice** the distance from the centroid to the midpoint on the opposite side.

*Possible locations of centroid: inside*