Def. \perp **Bisector**

A line, ray, segment, or plane that intersects a segment at its midpt. and is \bot to to the segment

Th. 5.1 \perp Bisector Th.

If a pt. is on the \bot bisector of a segment, then it is equidistant from the endpts. of the segment.

Th. 5.2

Any pt. equidistant from the endpts. of a segment lies on the \bot bisector of the segment.

Def. \angle **Bisector of a** \triangle

A line, segment, or ray that bisects an \angle of a triangle.

Th. 5.4 \angle Bisector Th.

If a pt. is on the bisector of an \angle , then it is equidistant from the sides of the \angle .

Th. 5.5

If a point in the interior of an \angle is equidistant from the sides of the \angle , then it lies on the bisector of the \angle .