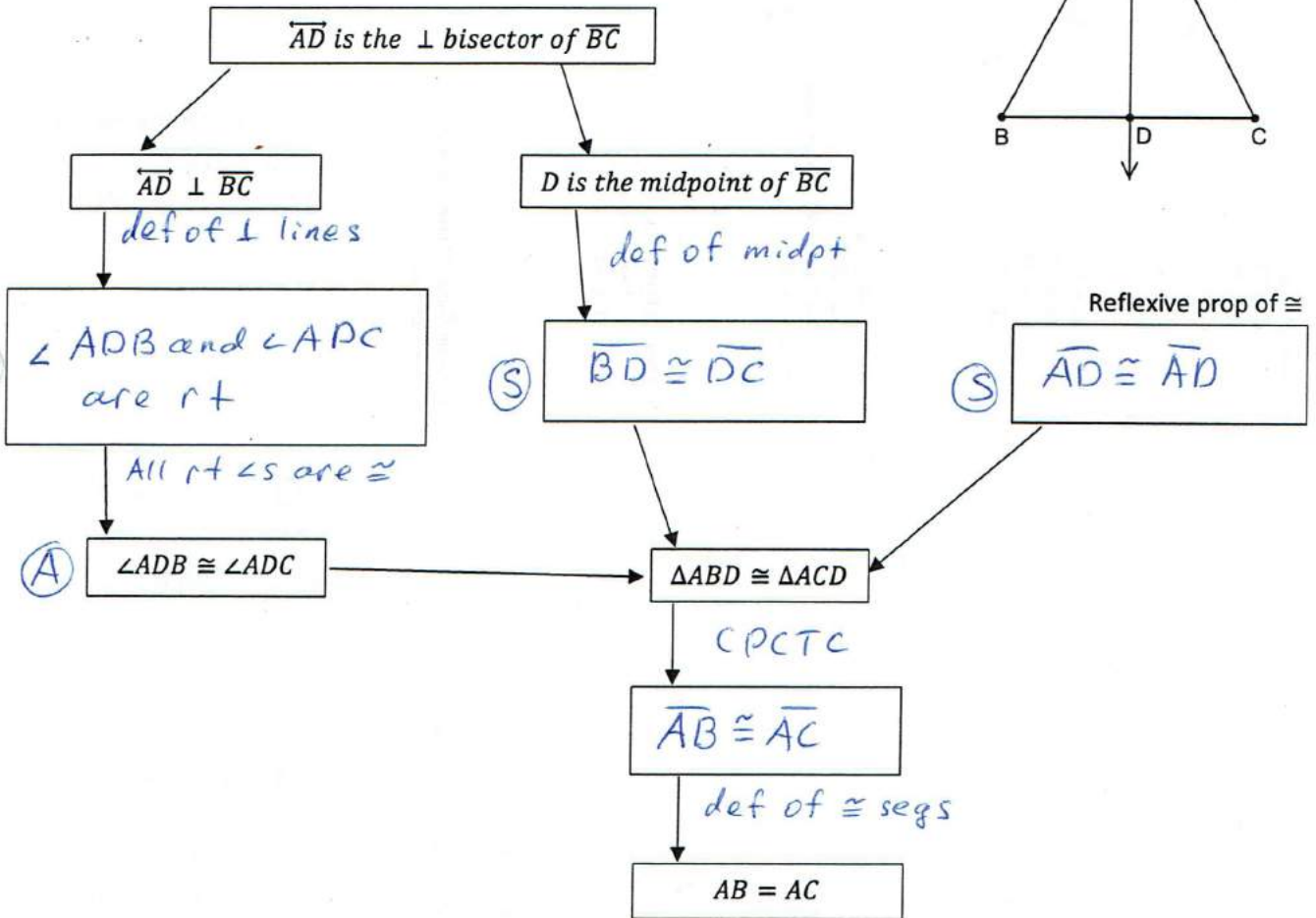
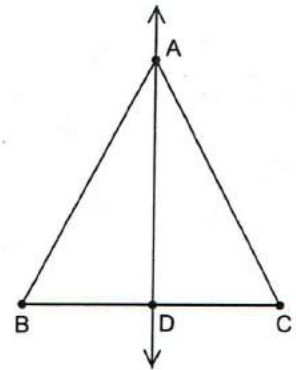


Theorems Involving Perpendicular Bisectors and Angle Bisectors

Given: \overline{AD} is the \perp bisector of \overline{BC}

Prove: $AB = AC$



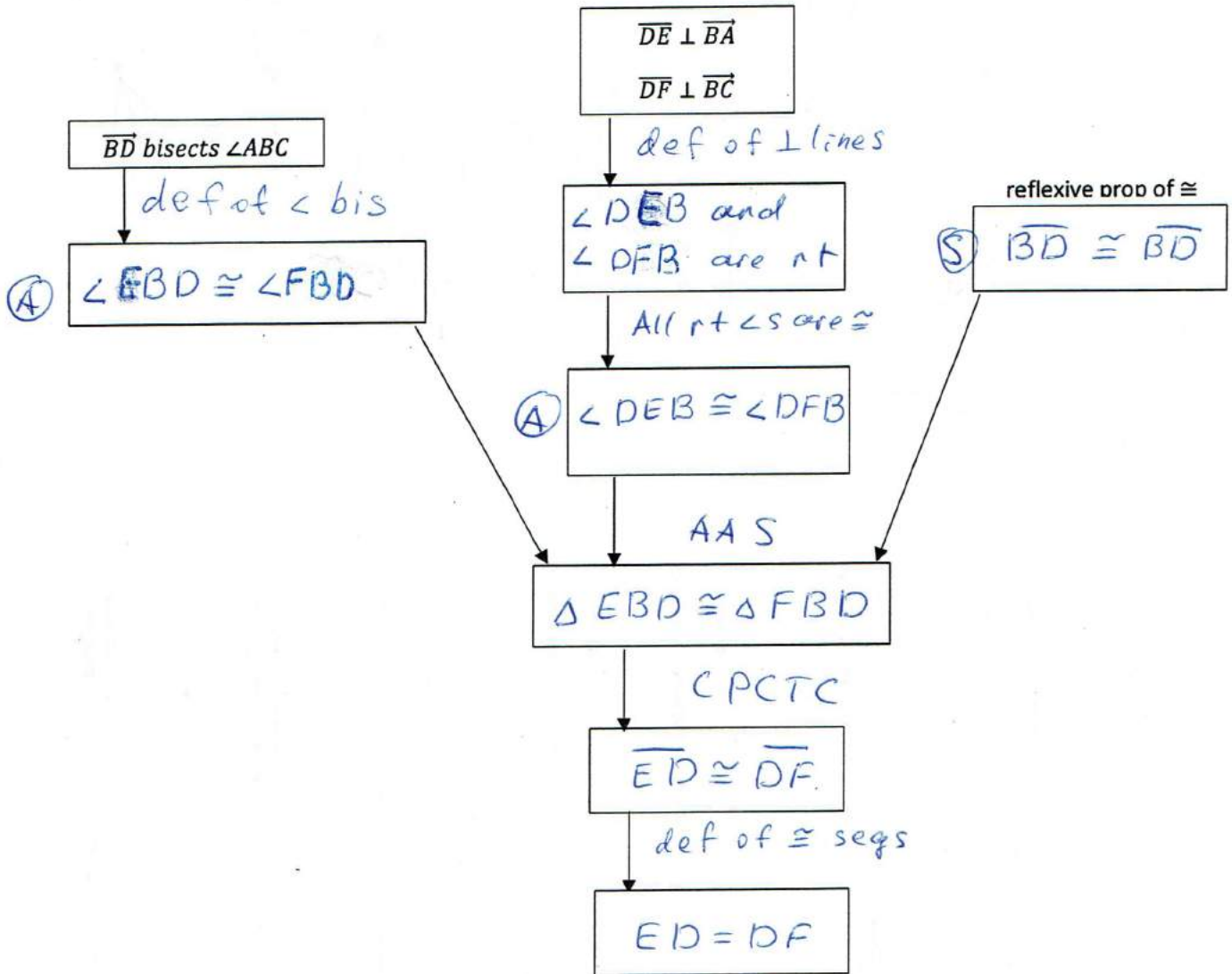
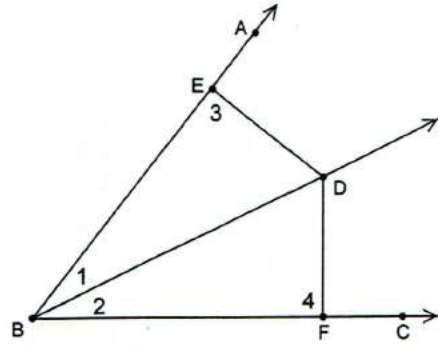
Theorem: If a point is on the perpendicular bisect of a segment,

it is equidistant from the endpoints

of the segment.

1. Given: \overline{BD} bisects $\angle ABC$
 $\overline{DE} \perp \overline{BA}$, $\overline{DF} \perp \overline{BC}$

Prove: $DE = DF$



Theorem: If a point is on the bisector of an angle, it is equidistant
 from the sides of the angle.