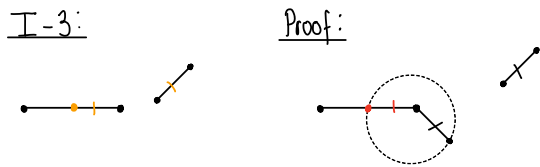
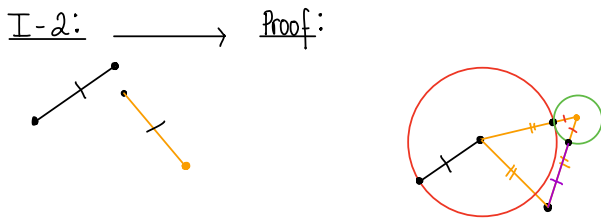
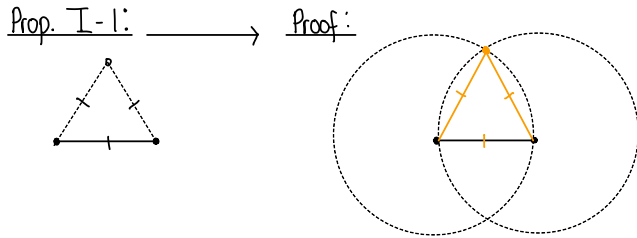
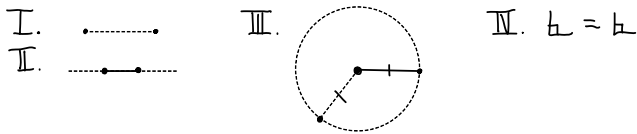
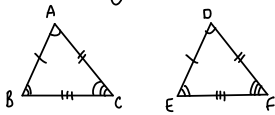


"Neutral" Geometry
 What can we do (with triangles especially) without Post. V?

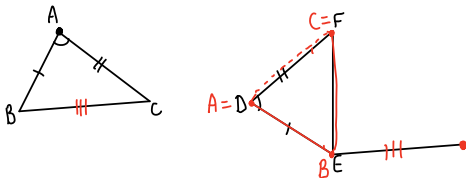


I-4: SAS Congruence Criterion



Proof:

- Suppose $\triangle ABC$ and $\triangle DEF$ have $\angle A = \angle D$, $AB = DE$ and $AC = DF$.
- To Show: $BC = EF$, $\angle B = \angle E$, and $\angle C = \angle F$



- "Apply" $\triangle ABC$ to $\triangle DEF$ so that A falls on D ,
 AB falls along DE ,
 $\&$ C ends up on the same side of DE as F does
- $AB = DE$ and since A is on D and AB is along DE , B falls on E
- Since $\angle A = \angle D$ and AB is along DF and C is on the same side as F , AC falls along DF
- Since $AC = DF$ it also follows that C falls on F
- But then $BC = EF$.
 $\&$ $\angle B = \angle E$
 $\&$ $\angle C = \angle F$.