

### **Th. 5.13 The Hinge Th.**

**If 2 sides of 1  $\triangle$  are  $\cong$  to 2 sides of a 2nd  $\triangle$ , and the included  $\angle$  in the 1st  $\triangle$  is greater than the included  $\angle$  in the 2nd  $\triangle$ , then the 3rd side of the 1st  $\triangle$  is greater than the 3rd side of the 2nd  $\triangle$ .**

**Th. 5.14 The Converse of the Hinge Th.**

If 2 sides of 1  $\Delta$  are  $\cong$  to 2 sides of a 2nd  $\Delta$ , and the 3rd side of the 1st  $\Delta$  is greater than the 3rd side of the 2nd  $\Delta$ , then the included  $\angle$  of the 1st  $\Delta$  is greater than the included  $\angle$  of the 2nd  $\Delta$ .