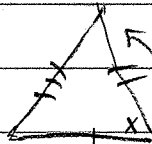
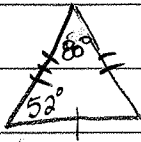


4.3 Prove Δ 's Congruent by SSS

* Side - Side - Side

Put down Reflexive, Symmetric & Transitive Properties

For SSS If 3 sides of a Δ are congruent to 3 sides of another Δ , then both Δ 's are congruent



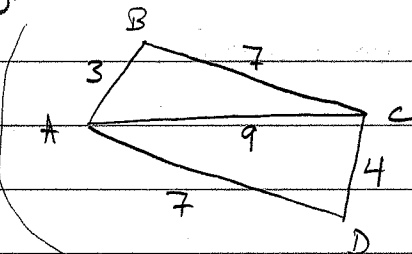
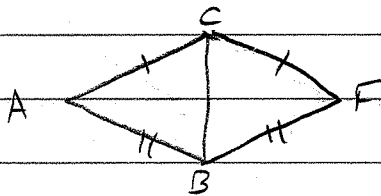
$X = ?$

Know \angle is 52° & \angle is 80° because are corresponding angles in congruent triangles

$$\text{So } X = 180 - 52 - 80$$

$$X = 48^\circ$$

Are the triangles congruent?



Yes! They share a side.

\overline{BC} is congruent to itself (Reflexive Prop)

No! \overline{AB} & \overline{CD} aren't \cong

$$\Delta ABC \cong \Delta BFC$$

p236:
1-7, 10,
13, 14, 17,
18, 19

Example

Given ΔDEF , is ΔABC Congruent?

$$DE = 4$$

$$EF = 6$$

$$DF \approx 7.211$$

$$AB = 6$$

$$BC = 4$$

$$AC = \sqrt{(-2-4)^2 + (-1-3)^2}$$

$$\text{Yes! } \sqrt{\frac{(-6)^2}{36} + \frac{(-4)^2}{16}} = \sqrt{52} \approx 7.21$$

