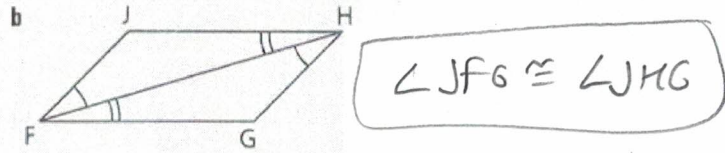
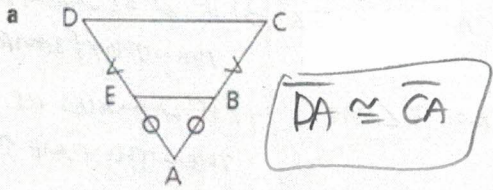
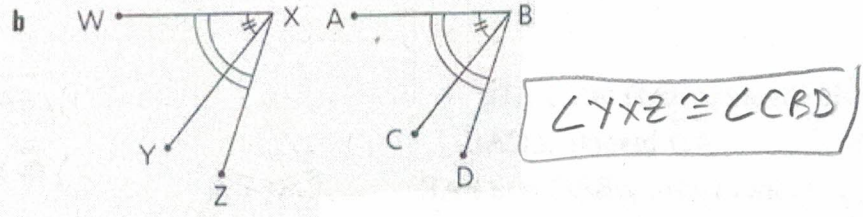
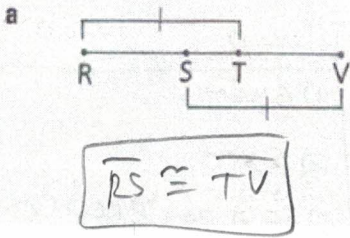


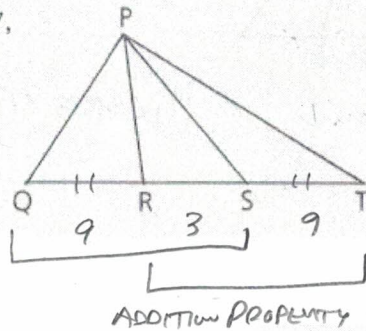
1 Name the angles or segments that are congruent by the Addition Property.



2 Name the angles or segments that are congruent by the Subtraction Property.



9 Given:  $\overline{QR} \cong \overline{ST}$ ,  $QS = 5x + 17$ ,  
 $RT = 10 - 2x$ ,  $RS = 3$   
Find:  $QS$  and  $QT$



$$5x + 17 = 10 - 2x$$

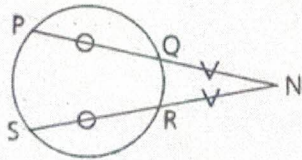
$$7x = -7$$

$$\underline{x = -1}$$

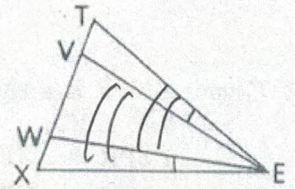
$$QS = 5(-1) + 17 = \underline{12}$$

$$QT = 9 + 3 + 9 = \underline{21}$$

3 Given:  $\overline{PQ} \cong \overline{SR}$ ,  
 $\overline{QN} \cong \overline{RN}$   
Conclusion:  $\overline{PN} \cong \overline{SN}$



4 Given:  $\angle TEV \cong \angle XEW$   
Prove:  $\angle TEW \cong \angle XEV$

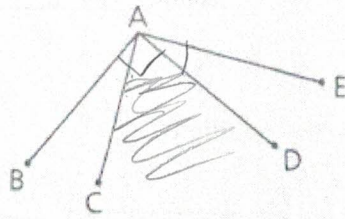


S	R
1) $\overline{PQ} \cong \overline{SR}$	1) GIVEN
2) $\overline{QN} \cong \overline{RN}$	2) GIVEN
3) $\overline{PN} \cong \overline{SN}$	3) ADDITION PROPERTY

S	R
1) $\angle TEV \cong \angle XEW$	1) GIVEN
2) $\angle TEW \cong \angle XEV$	2) ADDITION PROPERTY

10 Given:  $\angle BAD$  is a right  $\angle$ .  
 $\overline{CA} \perp \overline{AE}$

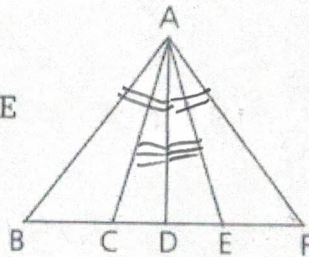
Prove:  $\angle BAC \cong \angle EAD$



S	R
1) $\angle BAD$ RT ANGLE	1) GIVEN
2) $\overline{CA} \perp \overline{AE}$	2) GIVEN
3) $\angle CAE$ RT. ANGLE	3) IF 2 SEGMENTS ARE PERP THEN THEY FORM RT. ANGLES
4) $\angle BAD \cong \angle CAE$	4) IF 2 ANGLES RT. ANGLES, THEN THEY ARE $\cong$ .
5) $\angle BAC \cong \angle DAE$	5) SUBTRACTION PROPERTY

11 Given:  $\angle BAD \cong \angle FAD$ ;  
 $\overrightarrow{AD}$  bisects  $\angle CAE$ .

Conclusion:  $\angle BAC \cong \angle FAE$

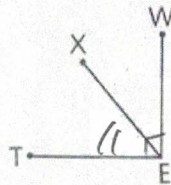
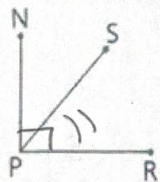


S	R
1) $\angle BAD \cong \angle FAD$	1) GIVEN
2) $\overrightarrow{AD}$ BISECTS $\angle CAE$	2) GIVEN
3) $\angle CAD \cong \angle EAD$	3) IF A RAY BISECTS AN ANGLE, THEN IT DIVIDES IT INTO 2 $\cong$ ANGLES.
4) $\angle BAC \cong \angle FAE$	4) SUBTRACTION PROPERTY

13 Given:  $\angle NPR$  is a right  $\angle$ .

$\overline{WE} \perp \overline{ET}$ ,  
 $\angle SPR \cong \angle XET$

Prove:  $\angle NPS \cong \angle WEX$



S	R
1) $\angle NPR$ RT. ANGLE	1) GIVEN
2) $\overline{WE} \perp \overline{ET}$	2) GIVEN
3) $\angle SPR \cong \angle XET$	3) GIVEN
4) $\angle WET$ RT. ANGLE	4) IF 2 SEGMENTS ARE PERP, THEN THEY FORM RT. ANGLES
5) $\angle NPR \cong \angle WET$	5) IF 2 ANGLES ARE RT. ANGLES, THEN THEY ARE $\cong$ .
6) $\angle NPS \cong \angle WEX$	6) SUBTRACTION PROPERTY