

**LESSON 162** .....

1. A, D
2. Corresponding angles are congruent.  
 $m\angle N = m\angle U = 33^\circ$   
Angles in a triangle add up to  $180^\circ$ .  
 $90 + 33 + (8x + 1) = 180$ ;  $x = 7$
3.  $\triangle MNL \cong \triangle TUS$ ,  $\triangle MLN \cong \triangle TSU$
4. 2. Reflexive Property      5.  $\overline{AB} \cong \overline{AC}$   
3. SSS
6. 2. Def. of bisect      7.  $\overline{PE} \cong \overline{PG}$   
5. All right  $\angle$ s are  $\cong$ .  
7. SAS
8. 2. alternate interior  $\angle$ s      9.  $\angle BAD \cong \angle CAD$   
3. Reflexive Property      10.  $\angle E \cong \angle G$   
4. ASA  
5. CPCTC      11.  $\overline{PQ} \cong \overline{RS}$  or  $\overline{QR} \cong \overline{SP}$
12. 3. Reflexive Property  
4. AAS  
5. CPCTC
13. Base  $\angle$ s of an isosceles  $\triangle$  are congruent, so  $a = 43$ .  
A triangle has  $180^\circ$ , so  $b = 180 - 2(43) = 94$ .
14. An equiangular triangle is equilateral, so  $a = b = 15$ .
15. interior angle sum =  $180(5 - 2) = 540^\circ$   
one interior angle =  $540/5 = 108^\circ$   
 $\triangle EAD$  is an isosceles  $\triangle$  with vertex angle  $108^\circ$ .  
 $108 + 2a = 180$ ;  $a = 36$   
 $b = m\angle D - a = 108 - 36 = 72$
16. 3. Base angles of an isosceles triangle are congruent.  
5. SAS  
6. CPCTC  
7. Definition of isosceles triangle