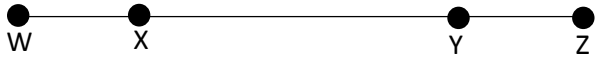
WS2: Lesson 2.7 Name _____ Per. __

2. Complete the proof.



Given: $\overline{WX} \cong \overline{YZ}$

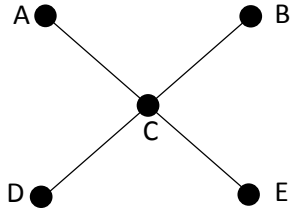
Prove: $\overline{WY} \cong \overline{XZ}$

Statements	Reasons
1.	
2. WX = YZ	
3. XY = XY	Reflexive Property of Equality
4. WX + XY = YZ + XY	
5.	Segment Addition Postulate
6.	Substitution
7.	Definition of Congruent Segments

4. Complete the proof.

Given: C is the midpoint of $\overline{AE}$
C is the midpoint of $\overline{BD}$
$\overline{AE} \cong \overline{BD}$

Prove: $\overline{AC} \cong \overline{CD}$

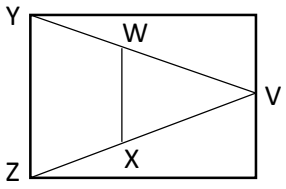


Statements	Reasons
1.	Given
2. AC = CE, BC = CD	
3. AE = BD	
4.	Segment Addition Postulate
5. AC + CE = BC + CD	
6. AC + AC = CD + CD	
7.	Substitution
8.	Division Property of Equality
9. $\overline{AC} \cong \overline{CD}$	

10. Complete the proof

Given: $\overline{VZ} \cong \overline{VY}$ and $\overline{WY} \cong \overline{XZ}$

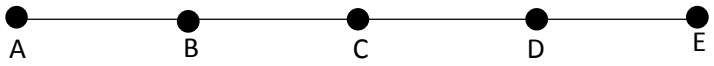
Prove: $\overline{VW} \cong \overline{VX}$



Statements	Reasons
1.	
2. VZ = VY and WY = XZ	
3.	Segment Addition Postulate
4. VX + XZ = VW + WY	Substitution
5.	Substitution
6. VX = VW	Subtraction Property of Equality
7.	Symmetric Property of Equality
8.	

12. Complete the proof

Given: B is the midpoint of $\overline{AC}$
D is the midpoint of $\overline{CE}$
$\overline{AB} \cong \overline{DE}$



Prove: AE = 4AB

Statements	Reasons
1.	
2. and	Definition of a midpoint
3. AB = DE	
4. AB = CD	
5.	Segment Addition Postulate
6. AE = AC + CE	
7. AE = AB + BC + CD + DE	Substitution
8.	Substitution
9.	

17. Turn to page 147 of your textbook to answer this question. Record your answer below.