Geometry Name_____

2.5 Practice

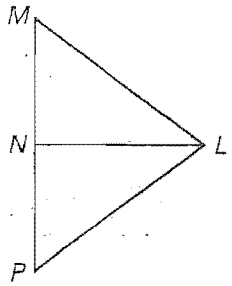
Match the statement with the Property of Congruence.

1. For any segment $\overline{XY}$, $\overline{XY} \cong \overline{XY}$
2. If $\overline{JK} \cong \overline{MN}$ and $\overline{MN} \cong \overline{CD}$, then $\overline{JK} \cong \overline{CD}$.
3. If $\overline{BN} \cong \overline{TR}$, then $\overline{TR} \cong \overline{BN}$.

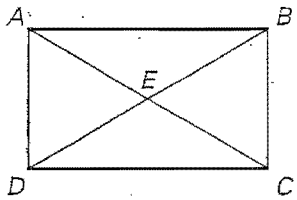
A. Transitive Property
B. Symmetric Property
C. Reflexive Property

Mark the diagram with the given information.

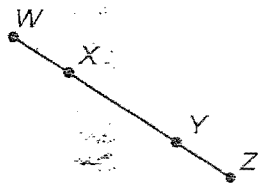
4. $LM = 5, LP = 5$
   $MN = 3, PN = 3$



5. E is the midpoint of $\overline{AC}$.
   E is the midpoint of $\overline{BD}$.

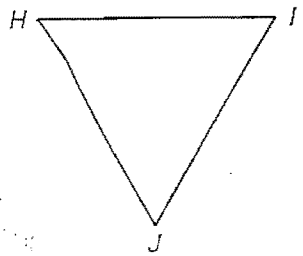


6. $\overline{WX} \cong \overline{YZ}$



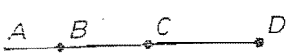
Complete the argument, giving a reason for each step

7. **Given:** $HI = 8, IJ = 8, \overline{IJ} \cong \overline{JH}$
   Prove: $\overline{HI} \cong \overline{JH}$



Statements	Reasons
1. $HI = 8$	1._____
2. $IJ = 8$	2._____
3. $HI = IJ$	3._____
4. $\overline{HI} \cong \overline{IJ}$	4._____
5. $\overline{IJ} \cong \overline{JH}$	5._____
6. $\overline{HI} \cong \overline{JH}$	6._____

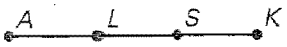
Given: B is between A and D.
C is between B and D.
Prove: $AD = AB + BC + CD$



Statements	Reasons
1. B is between A and D C is between B and D	1._____
2. $AD = AB + BD$	2._____
3. $BD = BC + CD$	3._____
4. $AD = AB + BC + CD$	4._____

Given: $AL = SK$

Prove: $AS = LK$



Statements	Reasons
1. $AL = SK$	1. _____
2. $LS = LS$	2. _____
3. $AL + LS = SK + LS$	3. _____
4. $AL + LS = AS$	4. _____
5. $SK + LS = LK$	5. _____
6. $AS = LK$	6. _____