

PRACTICE!

Justify each statement below using a property of equality, property of congruence, definition, or postulate.

1. If $PQ = PQ$, then $\overline{PQ} \cong \overline{PQ}$	1. Def. of Congruence
2. If K is between J and L , then $JK + KL = JL$	2. Segment Add. Postulate
3. $\overline{EF} \cong \overline{EF}$	3. Reflexive Property
4. If $RS = TU$, then $RS + XY = TU + XY$	4. Addition Property
5. If $AB = DE$, then $DE = AB$	5. Symmetric Property
6. If Y is the midpoint of \overline{XZ} , then $XY = YZ$	6. Def of. Midpoint
7. If $\overline{FG} \cong \overline{HI}$ and $\overline{HI} \cong \overline{JK}$, then $\overline{FG} \cong \overline{JK}$	7. Transitive Property
8. If $AB + CD = EF + CD$, then $AB = EF$	8. Subtraction Property
9. If $PQ + RS = TV$ and $RS = WX$, then $PQ + WX = TV$	9. Substitution Property
10. If $LP = PN$, and L, P , and N are collinear, then P is the midpoint of \overline{LN}	10. Def. of Midpoint
11. If $\overline{UV} \cong \overline{UV}$, then $UV = UV$	11. Def. of Congruence
12. If $CD + DE = CE$, then $CD = CE - DE$	12. Subtraction Property
13. If $2XY = XZ$, then $XY = \frac{1}{2}XZ$	13. Division Property
14. If $RS = ST$ and $ST = 2UV$, then $RS = 2UV$	14. Transitive Property

REASONS BANK

Properties of Equality:

Addition Property
 Subtraction Property
 Multiplication Property
 Division Property
 Distributive Property
 Substitution Property
 Reflexive Property
 Symmetric Property
 Transitive Property

Properties of Congruence:

Reflexive Property
 Symmetric Property
 Transitive Property

Definitions:

Definition of Congruence
 Definition of Midpoint

Postulates:

Segment Addition Postulate