# Bellwork
# 09/19/2011

**Name the property illustrated by the statement.**

1. $\angle ABC \cong \angle CBA$ Reflexive Prop.
2. If $\angle RST \cong \angle 5$, then $\angle 5 \cong \angle RST$ Symmetric Prop.
3. If QR=RS, RS=TU, then QR=TU. Transitive Prop.

# Geometry
# Review 2.6

## Vocabulary:

**Given:**
**Prove:**


| Statements | Reasons |
|---|---|
| | |

**Def. of Congruent Segments**

*AB=CD* *iff* $\overline{AB} \cong \overline{CD}$

**Def. of Congruent Angles**

$m\angle 1 = m\angle 2$ *iff* $\angle 1 \cong \angle 2$

**Def. of Complementary Angles**

*$\angle 1$ and $\angle 2$ are complementary iff* $m\angle 1 + m\angle 2 = 90°$

**Def. of Supplementary Angles**

*$\angle 1$ and $\angle 2$ are supplementary iff* $m\angle 1 + m\angle 2 = 180°$

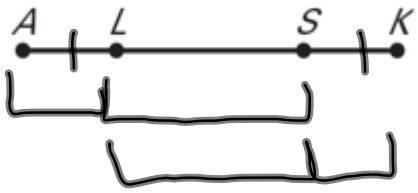
**Def. of Segment (angle) Bisector**

**Def. of a Midpoint**

# Complete a Proof

Complete the proof.

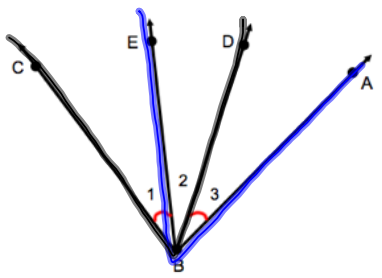
**GIVEN:** $AL = SK$
**PROVE:** $AS = LK$




| Statements | | Reasons | |
|---|---|---|---|
| **1.** | $AL = SK$ | **1.** | ? Given |
| **2.** | $LS = LS$ | **2.** | ? Reflexive Prop. |
| **3.** | $AL + LS = SK + LS$ | **3.** | ? Add. Prop. of = |
| **4.** | $AL + LS = AS$ | **4.** | ? Segment + post. |
| **5.** | $SK + LS = LK$ | **5.** | ? Segment + post |
| **6.** | $AS = LK$ | **6.** | ? Substitution Prop of = |

# Write a Two-Column Proof

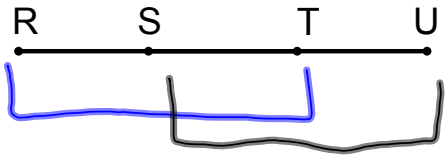
**Given:** $m\angle 1 = m\angle 3$
**Prove:** $m\angle EBA = m\angle DBC$




| Statements | Reasons |
|---|---|
| 1. $m\angle 1 = m\angle 3$ | 1. Given |
| → 2. $m\angle EBA = m\angle 3 + m\angle 2$ | 2. ✗ Addition Post. |
| 3. $m\angle DBC = m\angle 1 + m\angle 2$ | 3. ✗ Addition Post. |
| → 4. $m\angle DBC = m\angle 3 + m\angle 2$ | 4. Substitution Prop. of = |
| 5. $m\angle EBA = m\angle DBC$ | 5. Substitution Prop. of = |

In the diagram, RT=SU. Write a two-column proof showing RS=TU.

**Given:** $RT = SU$
**Prove:** $RS = TU$




| Statements | Reasons |
|---|---|
| 1. $RT = SU$ | 1. Given |
| 2. $RT = RS + ST$ | 2. Segment + Post. |
| 3. $SU = ST + TU$ | 3. Segment + Post. |
| 4. $RS + ST = ST + TU$ | 4. Substitution Prop. of = |
| 5. $RS = TU$ | 5. Subtraction Prop. of = |

# Homework Assignment

## Worksheet
## Review 2.6