**C:\Documents and Settings\Baumeier's\Local Settings\Temporary Internet Files\Content.IE5\X3GH99BS\MC900434389[1].wmfWhat’s the story on this notation between things that are**

**congruent and those that are equal?**

The notation used in geometry can often be confusing. The major problems seem to develop when working with segments and angles. Let’s see if we can clarify *“what”* gets used *“when”*

|  |  |  |
| --- | --- | --- |
| Basic  Knowledge: | with the bar on top, means the *actual segment itself*  without the bar on top, means the *length of the segment* labeled A and B | means the *actual angle* itself  means the *measure* of the angle labeled A, B, and C |

|  |  |
| --- | --- |
| **When to use Congruent** | **When to use Equal** |
| **Figures are Congruent**  Segments are congruent. Angles are congruent.  Triangles are congruent. This refers to the *actual* diagrams themselves. | **Numerical values are Equal.**  When an expression represents a *length* or measure, equal should be used. |

|  |  |
| --- | --- |
| **Notation at Work:** | **Things you should and should not write:** |
| Let’s see what we should write if we wish to *add the lengths of two sets of segments* known to be congruent: |  |

|  |  |
| --- | --- |
| **Changing congruent to numerical values** | **From congruent** **to equal** = |
| 1. Before we try to add these statements, we need to *change* these *congruent entities* to *numerical values*. After all, we *add numbers*, *not sets of points*. 2. Congruent segments are *segments of equal measure*. 3. Now, that we have these *numerical values*, we are read *to add*. |  |