Section 3.2 *Properties and Conclusions from Markings*	Name: _____ Date: _____ Period: _____	
Essential Question	How can I use the reflexive, transitive and symmetric properties and other symbols in geometry?	
Reflexive Property	a = a Domino A = Domino A	
Transitive Property	If a = b and b = c, then a = c. Domino A causes B to fall, B causes C to fall, then domino A caused C to fall.	
Symmetric Property	If a = b, then b = a. Domino A causes B to fall then domino B can cause A to fall.	
Tick Marks or Hatch Marks	Short line segments to show congruency. Single tick marks show one congruent set. Double tick marks show another congruent set.	Picture:
Arrowheads	Arrowheads indicate parallel lines. Single arrowheads show one parallel set. Double arrowheads show another parallel set.	Picture:
Small Square	A small square at the vertex of an intersection indicates perpendicular lines.	Picture:

Symbols save time and space when writing. Here are the most common geometrical symbols:

Symbol	Meaning	Example	In Words
Δ	Triangle	ΔABC has 3 equal sides	*Triangle ABC has three equal sides*
$\angle$	Angle	$\angle$ABC is 45°	*The angle formed by ABC is 45 degrees.*
$\perp$	Perpendicular	AB $\perp$ CD	*The line AB is perpendicular to line CD*
$\parallel$	Parallel	EF $\parallel$ GH	*The line EF is parallel to line GH*
υ	Degrees	360° makes a full circle	
$\llcorner$	Right Angle (90°)	$\llcorner$ is 90°	*A right angle is 90 degrees*
$\overline{AB}$	Line Segment "AB"	AB	*The line between A and B*
$\overleftrightarrow{AB}$	Line "AB"	$\overleftrightarrow{AB}$	*The infinite line that includes A and B*
$\overrightarrow{AB}$	Ray "AB"	$\overrightarrow{AB}$	*The line that starts at A, goes through B and continues on*
$\cong$	Congruent (same shape and size)	ΔABC $\cong$ ΔDEF	*Triangle ABC is congruent to triangle DEF*
$\sim$	Similar (same shape, different size)	ΔDEF $\sim$ ΔMNO	*Triangle DEF is similar to triangle MNO*
$\therefore$	Therefore	$a=b \therefore b=a$	*a equals b, therefore b equals a*