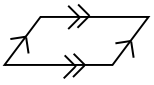
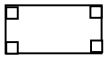
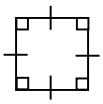
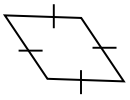
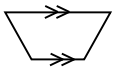
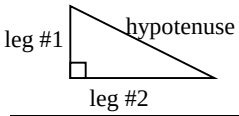
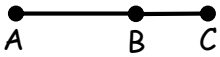
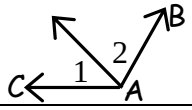
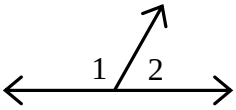
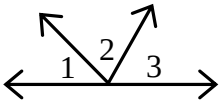
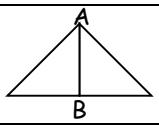
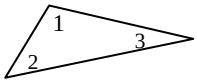
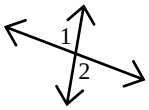
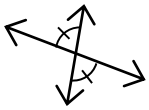
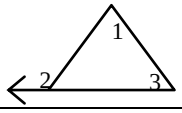
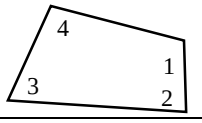
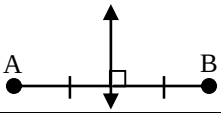
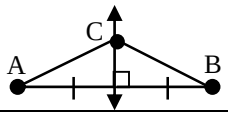
Justifications for Proofs

IF…	THEN	Justification
Parallel (∥)	Lines have the same slope	
Perpendicular (⊥)	Lines intersect to form a 90° angle	
Parallelogram	 Quadrilateral w/ BOTH pairs of opposite sides parallel	
Rectangle	 Quadrilateral w/ four right angles	
Square	 Quadrilateral w/ four right angles AND all sides equal lengths	
Rhombus	 Quadrilateral w/ all sides equal lengths	
Trapezoid	 Quadrilateral w/ only ONE pair of parallel sides	
Midpoint	Point that splits a segment into 2 ≅ segments	
Bisect	Cuts an object (angle or segment) into 2 ≅ parts	
Isosceles Triangle	Triangle w/ TWO sides of equal length	
Equilateral	All sides are ≅	
	$(\text{leg\#1})^2 + (\text{leg\#2})^2 = (\text{hypotenuse})^2$	

IF…	THEN	Justification
a = b & b = c	a = c	
	AB + BC = AC	
	m∠1 + m∠2 = m∠BAC	
≅ Δs	≅ parts	
	m∠1 + m∠2 = 180°	
	m∠1 + m∠2 + m∠3 = 180°	
	$\overline{AB} \cong \overline{AB}$	
	m∠1 + m∠2 + m∠3 = 180°	
 	m∠1 = m∠2