H. Geometry – Chapter 5– Definition Sheet

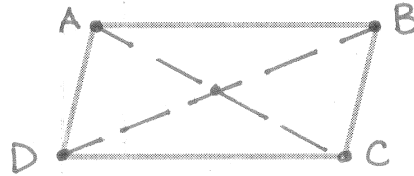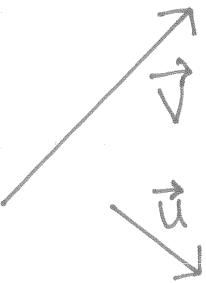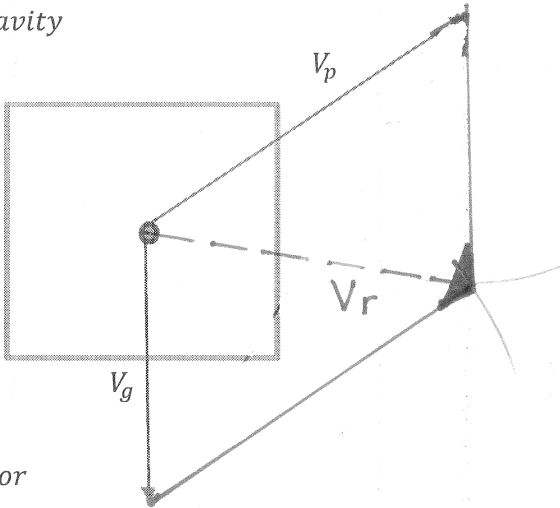|	

Quadrilateral Hierarchy	-Shows relationships among the various types of quadrilaterals
	
	- _membership_ works up the hierarchy ↑
	
	- _properties_ work down the hierarchy ↓
	
	Example: A rectangle is also :
	    - parallelogram
	    - isosceles trapezoid / trapezoid
	
	Properties of trapezoids also apply to:
	    - isosceles trapezoid
	    - parallelogram -square
	    - rectangle

Properties of Parallelograms:	
Parallelogram _consecutive_ **Angles Theorem**	The consecutive angle of a parallelogram are _supplementary_ Made possible by: _trapezoid consecutive ∠ Thm._ ∠A and ∠B are supp. / ∠B and ∠C are supp.
Parallelogram _opposite side_ **Theorem**	Both Pairs of opposite sides of a parallelogram are _congruent_ $\overline{AB} \cong \overline{CD}$; $\overline{AD} \cong \overline{BC}$
Parallelogram _opposite angle_ **Theorem**	Both Pairs of opposite angles of a parallelogram are _congruent_ $\angle A \cong \angle C$; $\angle D \cong \angle B$
Parallelogram _Diagonals_ **Theorem**	The diagonals of a parallelogram _bisect_ each other. $\overline{AC}$ bisects $\overline{BD}$; $\overline{BD}$ bisects $\overline{AC}$

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Vector	• A quantity with both ___direction___ and ___magnitude___
	 • Represented by arrows
	     o Direction: ___indicated by arrow head___
	     o Magnitude: ___indicated by the length of the vector.___
	 • Used in physics to represent forces, velocity, or acceleration

Resultant Vector	• A single vector representing the effect of two forces put together
	 • Finding vector sum
	     o Draw a parallelogram using the vectors as sides
	     o Resultant vector is the ___diagonal___ of this parallelogr drawn from the vectors' tails.
	
	 Example:
	
	 2 forces acting on an object
	
	 V_p = Force due to pulling
	
	 V_g = Force due to gravity
	
	 V_r = Resultant Vector