**Intro to Geometry** (G.GPE.B.4/5) Name: \_\_\_\_\_\_\_\_\_\_\_Key\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
**Unit One B: Coordinate Geometry Formulas Graphic Organizer** Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_\_

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| --- | --- | --- |
| **Slope** | **Distance/Length** | **Midpoint** |
| *m = rise*  (use with graph)  *run*  **1.**  *m* = y2 – y1 (use with points)  *x2 – x1*  **2.**  Parallel lines have the SAME slope.  **3.**  Perpendicular lines have the  OPPOSITE and RECIPROCAL slopes.  **4.** | *(Right triangle)*  **1.**  **2.**  Use with points | , )  \* Average of the endpoints |

Ex. y = mx + b → y = ½ x + 5

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| **Writing Equations of Lines:** | |
| **Step One:**  Find the slope (using one of the 4 methods)  or solve the equation for y  Ex. 2x - 3y = 6  - 3y = -2x + 6  y = 2/3x – 2 → slope = 2/3 | **Step Two:**  Plug the slope and an ordered pair of the line into y = mx + b and solve for b |

**Geometry** (G.CO.11) **Unit One B: Parallelograms Graphic Organizer**

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| **Properties of Parallelograms:** | |
| **1.** gram 🡪 opposite sides parallel (definition of parallelogram) |  |
| **2.** gram 🡪 opposite sides congruent | \*  \*  o  o |
| **3.** gram 🡪 opposite angles congruent |  |
| **4.** gram 🡪 consecutive angles supplementary | \* + o = 180  \*  \*  o  o |
| **5.** gram 🡪 diagonals bisect each other |  |

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| **Proving Quadrilaterals are Parallelograms:** | |
| 1. If quad has both pairs of opposite sides parallel 🡪 gram   (definition of parallelogram) |  |
| 1. If quad has both pairs of opposite sides congruent 🡪 gram |  |
| **3.** If quad has both pairs of opposite angles congruent 🡪 gram | \*  \*  o  o |
| **4.** If quad has diagonals that bisect each other 🡪 gram |  |
| **5.** If quad has one pairs of opposite sides **both** parallel & congruent 🡪 gram |  |