**Mini-Lesson #1 –Two-Dimensional Geometry (2-D Geometry – Math 7 PLUS )**

Vocabulary: Perimeter Area perpendicular

Circumference Diameter Radius

Part I: Around the room activity with Shapes

Part II: Finding Area and Perimeter of 2-Dimensional Shapes

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| **Perimeter**  **To find perimeter: Add up lengths of ALL sides of figure**  10 cm   1. 2) 7cm   2cm  6 cm  4 cm  5cm 3cm    4cm  8 cm | | |
| **Steps to Follow when using a formula**   * F - Write formula * S - Substitute numbers for variables * A = Answer | | **Important Features to remember**   * Height and base are perpendicular (Look for the *Right Angle* symbol to find height and base) |
| **Area of Rectangles and Squares**:  **A = bh** (base \* height) OR **A = lw** (length \* width)    Ex: 1) 6in 2) 8 cm  12 in | | |
| **Area of Triangles: Formula: Area of Triangles =**  **4 in**   1. 2.   **14 innn==============---------**  **24 cm**  **18 cm**  **30 cm**  **12 in** | | |
| **Area of Trapezoids**  **base**  **base**  **height**  **height**  **base**  **base**  **Area of a Trapezoid = ½ (b + b) h**    **18 cm**  **14 in**   1. **2.**   **14 cm**  **12.5 cm**    **7 in**    **22.5 cm**  **20in** | | |
| **Circle Information**  **Pi (π) = 3.14 or**  **Pi is irrational**  Ex:  Diameter  radius  Center | | |
| **Circumference of Circles:**  Formula: C = 2πr OR C = πd    2. 2) A circle with the radius of 9.7 m.   10 cm | **Area of circle Formula:** A = πr2   1. 2)   3) Find the area of a circle with a radius of 7.2 feet.   1. Find the area of a circle with a diameter of 11 in. Use for π | |

Part III: Find Area of Irregular Shapes

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| **Find the Area of the Shaded Regions.** |  |
|  |  |
| **Find the Area and Perimeter.** | **18 in**  **18 in** |
| ***The shapes are squares*** | **20in**  **20in** |

Part III: Find Area of Irregular Shapes

|  |  |
| --- | --- |
| **Find the Area of the Shaded Regions.** |  |
|  |  |
| **Find the Area and Perimeter.** | **18 in**  **18 in** |
|  | **20in**  **20in** |