Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

VOLUME OF PRISMS

The total space ***inside*** of a 3D figure is the **VOLUME** of an object. Volume is measured in **cubic**  units.

Volume is the number of cubic units it would take to completely fill up this rectangular prism!

1 cubic unit

 



To find the volume of a rectangular prism, we have to see how many **cubic** units fit inside the shape.

You use your knowledge of area of the base (which is 2-dimensional), but must also use the height of the solid.

Area of 2D rectangle: **Length** $∙$ **Width**

 **L** $∙ $ **W**

**Volume formula**

**V= L** $∙$ **W** $∙$ **H**



Example: Find the volume.

 

**V= L** $∙$ **W** $∙$ **H**

**V= 4** $∙$ **3** $∙$ **5**

 **V= 12** $∙$ **5**

 **V= 60** $cm^{3}$

Let’s Practice:

1. Count the units and ***label*** the length, width, and height of the rectangular prism shown. Use those measurements to calculate how many cubic units make up the prism. Use the Volume formula.

 V= \_\_\_\_\_\_\_ $units^{3}$

1. This rectangular prism does not show the individual cubic units, but you can still find volume by substituting the length, width, and height into the formula!

V= \_\_\_\_\_\_ $cm^{3}$

 V= \_\_\_\_\_\_\_\_

 V= \_\_\_\_\_\_\_\_