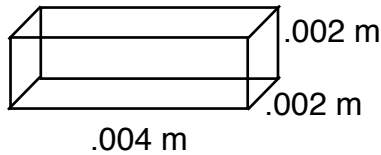


Converting Volume

To convert *area (units²)* or solid *volume (units³)* measurements you need to merely follow the normal steps for metric conversions with one difference; 1. Find the number of *hops* and *direction* & then ***Multiply by the exponent!***

For example: Find the volume of the box and then convert units.



L x W x H
 $.004\text{m} \times .002\text{m} \times .002\text{m}$
 $.000000016 \text{ m}^3$

**Convert
m³ to cm³**

1. Meters (m) to centimeters (cm)
= **2 HOPS RIGHT**

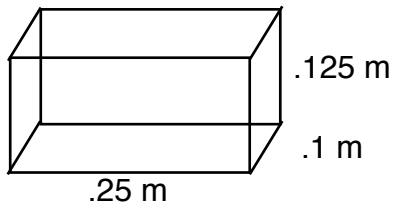
2. **MULTIPLY 2 hops** by exponent
m³

3. $2 \times 3 = 6$
TOTAL: 6 HOPS RIGHT
 $.000000016 \text{ m}^3$

4. New Number
0.016 cm³

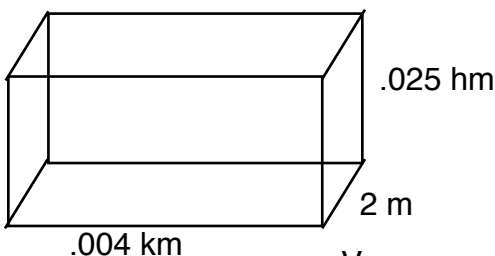
Directions: Be sure to calculate volume with given units and then convert to new units.

1. Find the volume of the box.



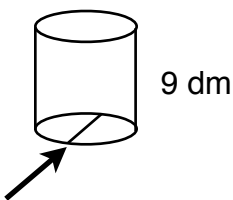
$V = \underline{\hspace{2cm}} \text{ m}^3 \rightarrow V = \underline{\hspace{2cm}} \text{ cm}^3$

2. Find the volume of the box. Convert measurements to desired units.



$V = \underline{\hspace{2cm}} \rightarrow V = \underline{\hspace{2cm}} \text{ cm}^3$

3. Find the volume of the cylinder. Convert to desired units.



$V = \underline{\hspace{2cm}} \rightarrow V = \underline{\hspace{2cm}} \text{ mm}^3$

Convert into new units.

4. $.0001245 \text{ m}^3 = \underline{\hspace{2cm}} \text{ cm}^3$

5. $12,300,300 \text{ mm}^3 = \underline{\hspace{2cm}} \text{ dm}^3$

6. $25,657 \text{ m}^3 = \underline{\hspace{2cm}} \text{ dkm}^3$

7. $.22 \text{ hm}^3 = \underline{\hspace{2cm}} \text{ m}^3$

8. $40.0 \text{ cm}^3 = \underline{\hspace{2cm}} \text{ mm}^3$

9. $1,234,356,456 \text{ mm}^3$
 $= \underline{\hspace{2cm}} \text{ hm}^3$

10. $.2546787966 \text{ km}^3$
 $= \underline{\hspace{2cm}} \text{ cm}^3$

11. $300 \text{ cm}^3 = \underline{\hspace{2cm}} \text{ mL}$

12. For water: $10 \text{ mL} = \underline{\hspace{2cm}} \text{ g}$