

## What is volume?

Volume is the number of cubic units that are needed to fill a solid.

## Examples of volume in the real world

$\sim$ fueling your car for travel
~ cooking/baking
$\sim$ filling up pools and hot tubs



## Volume of Cylinders

The formula for the volume of a cylinder is $\mathrm{V}=\pi \mathrm{r} 2 \mathrm{~h}$. (radius to the second power)


## Real-World examples of volume of a cylinder

~ Soda Cans

$\sim$ Jenga container



## Volume of a Cone

The volume of a cone is $v=1 / 3 \pi r 2(h)$.

Height (h)


## Real-World Examples

$\sim$ Ice cream cones
$\sim$ Party hats
$\sim$ Paper cups



## Volume of a Sphere/Hemispheres

The formula is $v=4 / 3 \pi(r 3)$ Spheres
The formula is $v=2 / 3 \pi(\mathrm{r} 3)$ Hemisphere


## Real-World Examples of Spheres

~Soccer Ball

~Basketball
~The Earth


## Useful tips and information

Make Sure you follow through each of the steps
REMEMBER that the power of 2 doesn't mean multiplying by 2 , but rather multiplying by itself. (ex. $4 \times 4$ )

Use 3.14 for $\pi$
Do your Best!

