## Warmup 4/ (\# of tetters in the word "four") <br> (Week 2)

Find the volume of each figure. Try to do it without looking at your notes, but you can look at them if you must

3)

2)

4)


## Add to your notes from

yesterday...

- The same thing happens with rectangular prisms and pyramids.


Pyramid: Volume is $1 / 3$ of the prism with the same base and height


Find the volume:


Volume $=$ cube - cone
Volume $=6 \cdot 6 \cdot 6-\frac{1}{3} \pi \cdot 2^{2} \cdot 6$
Volume $\approx 216$-25.1
Volume $\approx 190.9 \mathrm{~cm}^{3}$
cm

Find the volume:

- Can you figure out what you need to
do??????
The height is perpendicular to the base. Use the Pythagorean Theorem to find it.

$$
\begin{aligned}
& 3^{2}+h^{2}=9^{2} \\
& h=\sqrt{72} \text { or } \approx 8.49 \\
& V=\frac{1}{3} \pi \cdot 3^{2} \cdot \sqrt{72} \pi \\
& V=\frac{1}{3} \pi \cdot 3^{2} \cdot \sqrt{72} \quad \begin{array}{c}
\text { (More exact than } \\
\text { using } 8.49)
\end{array} \\
& V \approx 80.0 \text { units }^{3}
\end{aligned}
$$

Remember...


- The volume of a cone is $1 / 3$ of the volume of the cylinder with the same radius and height.




## Drawing a sphere

- It's hard to draw a sphere, because when you do, it just looks like a circle.
- One way around this is to draw in the circle around the middle (like the "Equator")



