## Warmup 3/(The sum of the whole numbers from 2 to 7)



4500 - 1500 = 3000 ft



#### Homework Review

Document Camera

#### FORMULAS REVIEW

<u>Circles:</u>

**Circumference:**  $C = \pi d$  or  $C = 2\pi r$ 

Area:  $A = \pi r^2$ 





#### Prisms

### Prisms have TWO bases that are connected by flat sides all around.



FORMULAS REVIEW **Any Prism:** Volume = (Area of base) x height • **Rectangular Prism:**  $V = (lw) \cdot h$  $V = \left(\frac{bh}{2}\right) \cdot h$ **oTriangular Prism:**  $V = (\pi r^2) \cdot h$ oCylinder

#### Pyramids/Cones

Pyramids & Cones have ONE base, and come to a point at the top.



#### Cones & Pyramids <u>Any Pyramid:</u> Volume = $\frac{(Area of base) \cdot height}{3}$

• Rectangular/Square Pyramid:

o Cone:

 $V = \frac{lwh}{3}$  $V = \frac{\pi r^2 \cdot h}{3}$ 

#### Volume of a sphere

The volume of a sphere is 2/3 of the cylinder it "fits" in.

• 
$$V(sphere) = \frac{2}{3} (\pi r^2 \cdot h)$$
  
•  $V(sphere) = \frac{2}{3} (\pi r^2 \cdot 2r)$   
•  $V(sphere) = \frac{4}{3} \pi r^3$ 



# Spheres Spheres:

$$\mathbf{O}V = \frac{4}{3}\pi r^3$$



All 3-dimensional formulas have three variables!!!

- o Rectangular Prism: $V = l \cdot w \cdot h$ o Cylinder: $V = \pi r^2 h$  $V = \pi \cdot r \cdot r \cdot h$ o Cone: $V = \frac{1}{2} \cdot \pi \cdot r \cdot r \cdot h$
- Sphere:  $V = \frac{4}{3}\pi r^3$   $V = \frac{4}{3}\cdot\pi\cdot r\cdot r\cdot r$

All 2-dimensional formulas have three variables!!

- Rectangle:  $A = l \cdot w$
- Triangle:  $A = \frac{1}{2} \cdot \mathbf{b} \cdot \mathbf{h}$
- Circle:  $A = \pi r^2$   $A = \pi \cdot r \cdot r$

- Radius = z
- Thickness = a
- Find the Volume





#### **CLASSWORK/HOMEWORK:**

- Volume Scavenger Hunt WS
- TYPO: THE DIAMETER ON H SHOULD BE 24 CM, NOT 28
- The answer to each problem is SOMEWHERE ELSE on the sheet
- You can start at any problem you want the sequence should take you to all 14 problems and then back to the one you started at.
- If you start at A, most of the harder ones will be near the end.
- You may work alone, or with a partner of your choice. Be responsible pick someone you will work well with and who won't distract you. If I see you and your partner off task, <u>you will be separated</u>.
- You must show ALL work. If you need more space, attach a separate sheet of paper.
- WHATEVER YOU DON'T FINISH IS HOMEWORK!!!