Name: _____ **Class: _____**

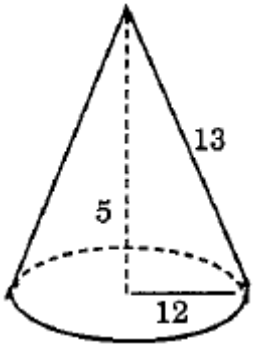
Notes #2 - Volume of 3-D Figures - Cones **Date: _____**

A. Cone – has one base that is a circle and then meets at a common vertex.

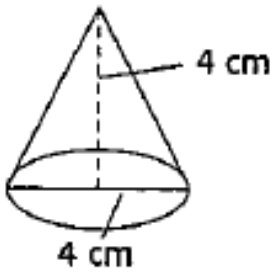
Formula: $V = \frac{Bh}{3}$ $V = \frac{\pi r^2 h}{3}$ (what is the base in a cone?)

For Examples 1 and 2, find the volume of each cone.

Example 1a:



Example 1b: (Hint: What's the radius?)



Volume = _____ **Volume = _____**

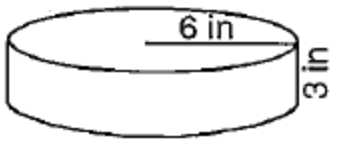
Find the volume to the nearest tenth.

Volume ≈ _____ **Volume ≈ _____**

B. Comparing/Analyzing volumes.

Example 2:

a) Given the following figure, find the volume (leave in terms of π).



b) Draw a cone with the same dimensions as the figure above, what is the cones volume (leave in terms of π)?

c) How do the two volumes compare?

Example 3:

What would have a greater effect on the volume of a cone: doubling its radius or doubling its height? *(Use the information from 2b to get started)*

a) Double radius:

b) Double height: