

NAME: \_\_\_\_\_ Score \_\_\_\_\_/10

Please **print** your name**SHOW ALL YOUR WORK IN A NEAT AND ORGANIZED FASHION**

For each question after the first I expect you to use the answer to the previous questions. Remember formulas **MUST** be equations.

1. The formula for the volume of a cylinder with radius  $r$  and height  $h$  is  $V = \pi r^2 h$ .

2. The formula for the area of a circle with radius  $r$  is  $A = \pi r^2$ .

3. What is the area of the base of a cylinder with radius 4 and height 3?

$$A = \pi r^2$$

$$A = \pi 4^2 = 16\pi$$

4. What is the volume of a cylinder with radius 4 and height 3?

$$V = \pi r^2 h$$

$$V = 16\pi(3) = 48\pi$$

5. What is the volume of a cone with radius 4 and height 3?

$$V = \frac{1}{3} \pi r^2 h$$

$$V = \frac{1}{3} (48\pi) = 16\pi$$