

## Handout 3: Pump Up The Volume

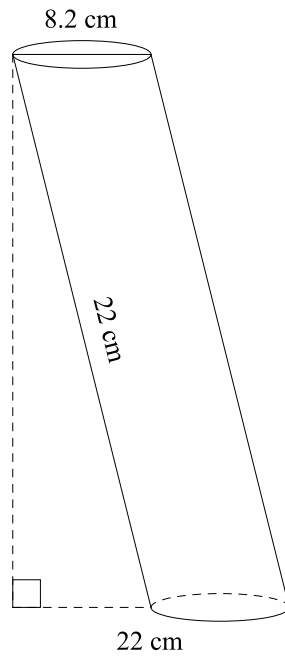


Figure 1

1. Find the volume of the solid in Figure 1.
2. Find the volume of a rectangular prism with dimensions of  $100\text{ m} \times 200\text{ m} \times 125\text{ m}$ .
3. Find the volume of a pentagonal pyramid with a slant height of 36 ft and an apothem of 10 ft.
4. Find the volume of an oblique cone with a diameter of 17 m and a height of 24.7 m.
5. Find the volume of a sphere with a circumference of 31.4 ft.

6. Find the volume of a rectangular prism with dimensions of 5 in  $\times$  6 in  $\times$  9 in connected to a pyramid with a rectangular base of 5 in  $\times$  6 in and a height of 12 in.
7. A hemisphere with a diameter of 4.2 yd sits atop a cylinder with the same diameter and a height of 5.8 yd. A cone of the same dimensions as the cylinder has been hollowed out from the inside. What is the volume of the solid?
8. A cylindrical test tube has a diameter of 1.6 centimeters and a length of 15 centimeters. If one cubic centimeter equals one milliliter, then how many milliliters can one test tube hold?
9. Your bathtub is in the shape of a rectangular prism. Its dimensions are 151 centimeters, 81 centimeters, and 46 centimeters. If 1 liter is 1000 cubic centimeters, how many liters of water can your bathtub hold?
10. A cylindrical fountain has a diameter of 10 feet and a height of 1 foot. What is the maximum volume of water that the fountain can contain?