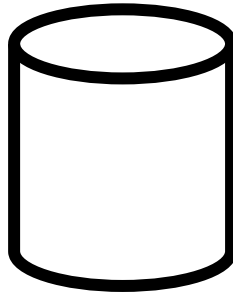Name _____   Date _____

Volumes of Cones, Cylinders, and Spheres - Step-by-Step Lesson

Lesson 1 Volume of a Cylinder:

Calculate the volume of a cylinder that is 5 m long and 40 cm wide (in cubic centimeters).

Explanation:

Step 1) Since we need to find the final answer in cubic centimeters all measures first need to be in centimeters.

5 meters = 500 centimeters.

Step 2) The volume of a cylinder can be found using the formula.

$V = \prod r^2 h$

Let's define all the variables. $\prod$ is a constant. $\prod = 3.14$

r is the radius or half of the width. If the width is 40 cm, the radius is 20 cm (40/2).

h is the height. h = 500 cm

Time to plug all those values in.

$V = 3.14 (20)^2 (500)$

$V = 628,000 \text{ cm}^3$