Geometry – Measurements of Three-Dimensional FiguresName16b Homework: Volumes of CylindersPd _____ Date _____

For questions 1-3, sketch a diagram of the figure being described and label its dimensions.

1. Determine the volume of a cylinder that has a base with a radius of 15 centimeters and a height of 10 centimeters. Express your answer in exact form AND as an approximation rounded to the nearest hundredths place.

2. The Birch Aquarium in San Diego has large cylindrical tank that houses numerous jellyfish. The tank measures 10 feet tall and the radius of its base is 4 feet long. Determine the volume of the tank. Express your answers in exact form AND as an approximation rounded to the nearest hundredths place.

3. An oil drum is in the shape of a cylinder and has a height of 3 feet. If the radius of the base of the oil drum is 1.5 feet, determine the volume of the drum. Express your answers as an approximation rounded to the nearest hundredths place.

4. The diagram shown below represents a water pipe, which is an example of a hollowed-out cylinder. Determine the volume of the solid part of the pipe. Express your answer as an approximation rounded to the nearest hundredths place.

