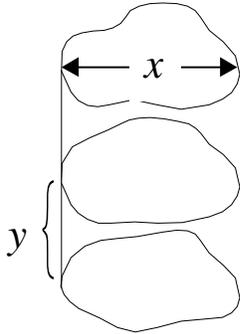


Fuel Tank

A ship has a somewhat irregularly shaped fuel tank, as depicted. Let y denote the average depth



of the fuel in the tank, and let x denote the average distance across the surface of the fuel.

- Construct **two** simple models, each of which estimates the volume, V , of the fuel in the tank for any given depth of fuel. State any assumptions you made for each model.
- Use the test data given below to select which of your models is the better one.

<i>depth, y</i>	3.00	4.00	5.00	6.00	7.00
<i>diameter, x</i>	1.61	1.58	1.64	1.60	1.60
<i>Volume, V</i>	6.67	8.56	11.52	13.16	15.35

- Refine your model based on the data, if needed.