Volume of Prisms and Cylinders

The volume formula for prisms and cylinders is

To understand this formula, take the example of a rectangular prism that is 4 units tall and has a base with area 6 square units. Each _____ gives rise to a _____ in each layer. There is _____ for each _____.

Note that when we measure the height for oblique prisms and cylinders, we must measure in the direction _____, NOT _____.

Other Volume Formulas

The volume formula for pyramids and cones is

The volume formula for a sphere with radius r units is

Volume vs. Surface Area

1. By describing what surface area and volume each measure for a solid shape, explain why these are different.