

## Volume

## **About These Problems**

The volume of a figure is the amount of three-dimensional space it takes. The formula for area is area of the base times height. The only odd figure you will see is a sphere whose volume is  $4/3 * pi * r^3$ . The area of a cylinder is the area of the circular base multiplied by the height.

**Question.** What is volume of a cylinder that has a base of radius 5 and height of 10.

- 1. Volume = 760
- 2. Volume = 765
- 3. Volume = 157
- 4. Volume = 785
- 5. Volume = 750

**Answer. 4**: If the triangle is a right triangle, using the Pythagorean theorem we can deduce that the longest side (hypotenuse) is 10.

 $5^2 *3.14 * 10 = 785$  cubic units.