

## Math 105 Exit Exam – Formulas from Prior Courses

The following list contains important formulas from prior classes that you are **expected to know**:

Triangle of base  $b$  and height  $h$  :

$$\text{Area} = \frac{1}{2}b \cdot h$$

Square of side  $l$  :

$$\text{Perimeter} = l + l + l + l = 4l$$

$$\text{Area} = l^2$$

Rectangle of sides  $a$  and  $b$  :

$$\text{Perimeter} = 2a + 2b$$

$$\text{Area} = a \cdot b$$

Circles of radius  $r$  :

$$\text{Perimeter} = 2\pi r$$

$$\text{Area} = \pi r^2$$

Sphere of radius  $r$  :

$$\text{Area} = 4\pi r^2$$

$$\text{Volume} = \frac{4}{3}\pi r^3$$

Cylinder of radius  $r$  and height  $h$  :

$$\text{Volume} = \pi r^2 h$$

Object of area  $A$  and uniform thickness  $\Delta h$  :

$$\text{Volume} = A \cdot \Delta h$$