

Math 160 – Formulas from Previous Classes

Please note that the following list does not include every possible formula you might need for Math 160. When in doubt, memorize! 😊 Also, if you see a formula that's not on this list, feel free to ask me if you'll be expected to know it.

Formulas that you should know

Distance/rate/time formula: $d = rt$

Pythagorean Theorem: $a^2 + b^2 = c^2$ (or $(leg)^2 + (leg)^2 = (hypotenuse)^2$)

Distance between (x_1, y_1) and (x_2, y_2) : $d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$

Area of rectangle: $A = lw$

Area of circle: $A = \pi r^2$

Area of triangle: $A = \frac{1}{2}bh$

Circumference of circle: $C = 2\pi r = \pi d$

How to get perimeter of any polygon (just add the lengths of the sides).

How to get the surface area of a 3-D surface (just add the areas of the faces/sides).

Volume of a box (also called a rectangular prism): $V = lwh$

Volume of circular cylinder: $V = \pi r^2 h$

Formulas I'll provide on a quiz/test

Surface area of sphere: $SA = 4\pi r^2$

Volume of sphere: $V = \frac{4}{3}\pi r^3$

Volume of cone: $V = \frac{1}{3}\pi r^2 h$