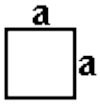
MCTE Lesson Plan: Create a Mind-Challenging Game

Mathematics Formulas

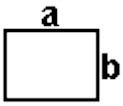
pi: (*pi* = π= 3.141592...)

Area: (Note: "ab" means "a" multiplied by "b". "a^2" means "a squared," which is the same as "a times a." *Be careful, units count. Use the same units for all measurements.*

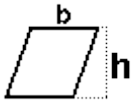
square = a^2



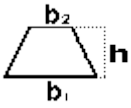
rectangle = ab



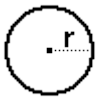
parallelogram = bh



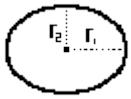
trapezoid = h/2 (b_1 + b_2)

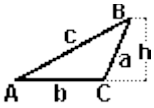


circle = *pi* r^2

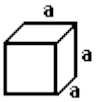


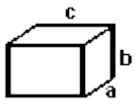
ellipse = *pi* r_1 r_2

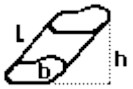


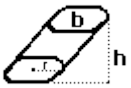
triangle =	$\frac{1}{2}(bh)$		one half times the base length times the height of the triangle

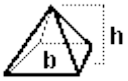
Volume: Note: "ab" means "a" multiplied by "b." "a^2" means "a squared" (the same as "a" times "a.") "b^3" means "b cubed" (the same as "b" times "b" times "b"). *Be careful, units count. Use the same units for all measurements.*

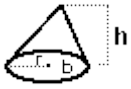
cube = a^3 

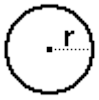
rectangular prism = a b c 

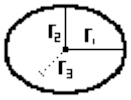
irregular prism = **b** h 

cylinder = **b** h = *pi* r^2 h 

pyramid = (1/3) **b** h 

cone = (1/3) **b** h = 1/3 *pi* r^2 h 

sphere = (4/3) *pi* r^3 

ellipsoid = (4/3) *pi* r_1 r_2 r_3 

equilateral triangle =	$\frac{\sqrt{3}}{4}(a^2)$