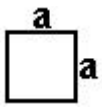
Dave's Math Tables: *Areas, Volumes, Surface Areas*

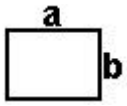
UP

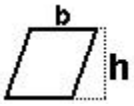
(Math | Geometry | AreasVolumes)

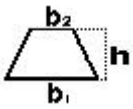
(*pi* = π = 3.141592...)

Areas

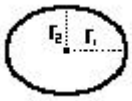
square = a^2 

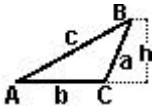
rectangle = ab 

parallelogram = bh 

trapezoid = h/2 (b_1 + b_2) 

circle = *pi* r^2 

ellipse = *pi* r_1 r_2 

triangle = (1/2) b h 

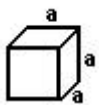
equilateral triangle = [√(3)/2] a^2 = √(3/4) a^2

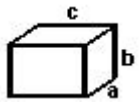
triangle given SAS = (1/2) a b sin C

triangle given a,b,c = √[s(s-a)(s-b)(s-c)] when s = (a+b+c)/2 **(Heron's formula)**

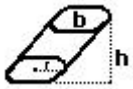
regular polygon = (1/2) n sin(360°/n) S^2
when n = # of sides and S = length from center to a corner

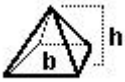
Volumes

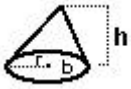
cube = a^3 

rectangular prism = a b c 

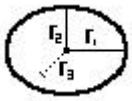
irregular prism = **b** h 

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

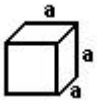
pyramid = (1/3) **b** h 

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 

Surface Area

cube = 6 a ^{2} 

prism:

(lateral area) = perimeter(**b**) L

(total area) = perimeter(**b**) L + 2**b** 

sphere = 4 *pi* r ^{2}