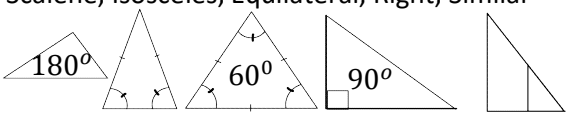
M8 - 5.0 - SA/V Table Review

$a^2 + b^2 = c^2$

Scalene, Isosceles, Equilateral, Right, Similar



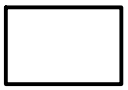
$\frac{a}{b} = \frac{c}{d}$

Area & Perimeter

Square

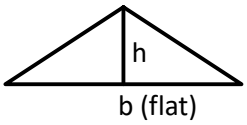
$A = s^2$
$P = 4s$

Rectangle



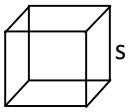
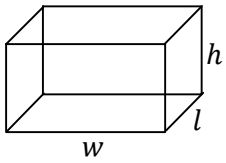
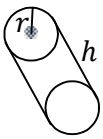
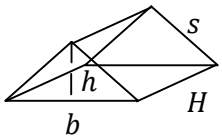
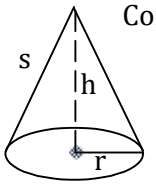
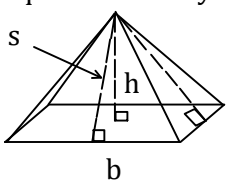
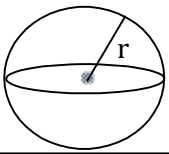
$A = l \times w$
$P = 2l + 2w$

Triangles



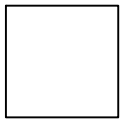
$A = \frac{bh}{2}$
$p = a + b + c$

$A = \pi r^2$
$C = 2\pi r$

Shape	Surface Area	Volume
 Cube	$SA = s^2 \times 6$	$V = Area_{base} \times height$ $V = s^3$
Rectangular Prism 	$SA = 2(lw + lh + wh)$	$V = lwh$
 Cylinder	$SA = 2\pi r^2 + 2\pi rh$	$V = \pi r^2 h$
Triangular Prism 	$SA = bh + 2sH + bH$	$V = \frac{bh}{2} \times H$
 Cone	$SA = \pi r^2 + \pi rs$	$V = \frac{1}{3} Area_{base} \times height$ $V = \frac{1}{3} \times (\pi r^2) \times h$
Square-Based Pyramid 	$SA = 2bs + b^2$	$V = \frac{1}{3} \times l \times w \times h$
General Right Pyramid	$SA = sum\ side\ faces$	$V = \frac{1}{3} \times l \times w \times h$
 Sphere	$SA = 4\pi r^2$	$V = \frac{4}{3}\pi r^3$

M8 - 5.0 - Geometry Review

Square & Rectangle



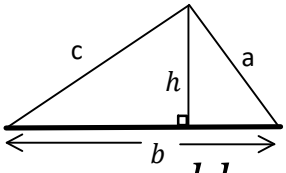
$A = Lw$

$units^2$

$P = 2L + 2w$

$units$

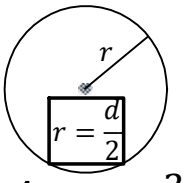
Triangle



$A = \frac{bh}{2}$

$P = a + b + c$

Circle



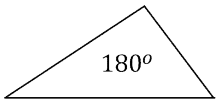
$A = \pi r^2$

$C = 2\pi r$

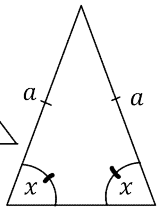
$C = \pi d$

Ellipse
(Stretched Circle)
Quadrilaterals (4)
Trapezoid (2 Parallel)
$A = \frac{(a+b)h}{2}$
Parallelogram $A = bh$
(2x2Parallel)
Rhombus
(Square Parallelogram)
Kite/Diamond
Agons
Pent 5, Hex 6
Hept 7, Oct 8
Non 9, Dec 10
Dodec 12
Regular* (Same)
Semi/Hemi (Half)

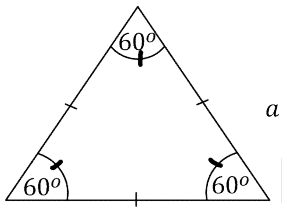
Scalene



Isosceles

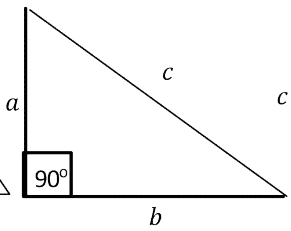


Equilateral



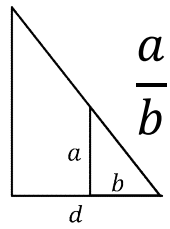
Tick Identical Lines/Angles!

Right Angle



$a^2 + b^2 = c^2$

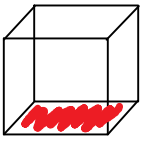
Similar



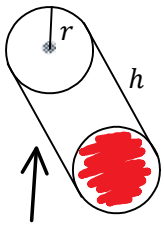
$\frac{a}{b} = \frac{c}{d}$

Prisms

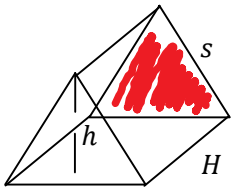
Cube & Rectangular



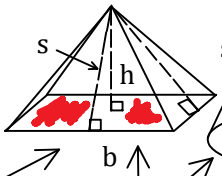
Cylinder



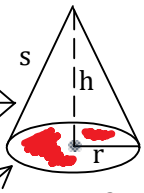
Triangular



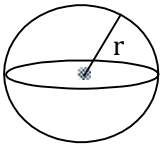
Pyramid



Cone



Sphere



Surface Area: Lay it Flat!

$units^3$ $V = A_{base} \times h$

$V = \frac{1}{3} A_{base} \times h$ (Cone and Pyramid)

$SA = \pi r^2 + \pi rs$

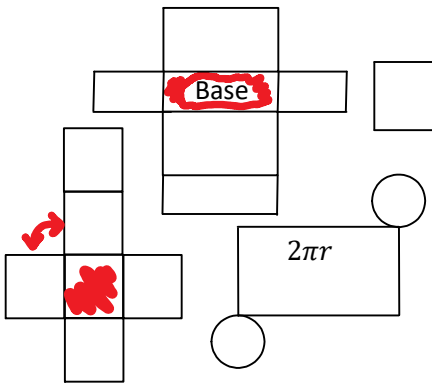
$SA = 4\pi r^2$

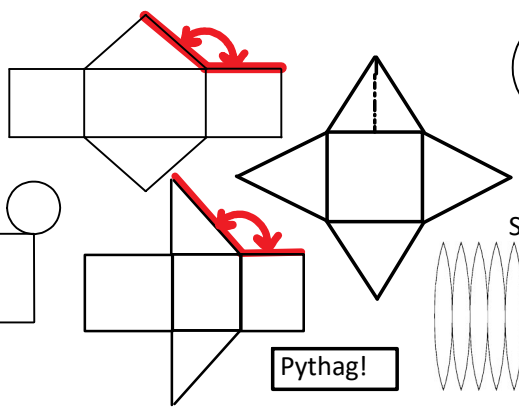
$V = \frac{4}{3}\pi r^3$

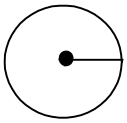
(Prism: Base must be same as top)

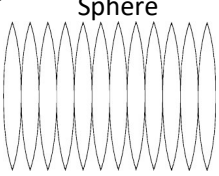
Shade the Base!

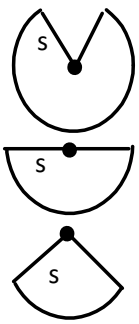
Above Prisms/Pyramids!* Combinations/Cuts!*











$A = \pi rs$