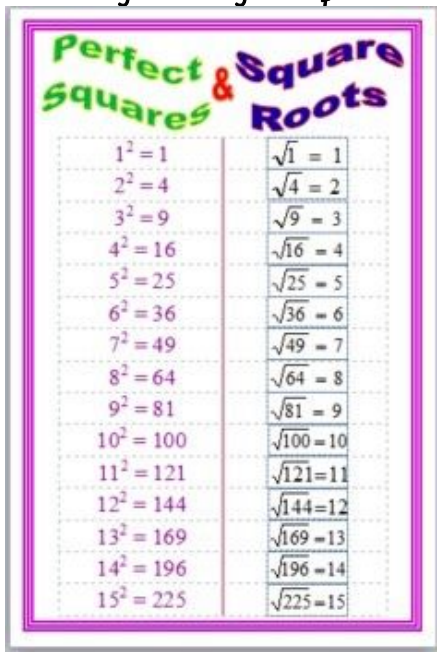
1st Fifteen Perfect Squares



1st Six Perfect Cubes

$1^3 = 1$

$2^3 = 8$

$3^3 = 27$

$4^3 = 64$

$5^3 = 125$

$6^3 = 216$

Laws of Exponents

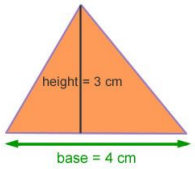
Law
$x^0 = 1$
$x^1 = x$
$x^a x^b = x^{a+b}$
$x^a / x^b = x^{a-b}$
$(x^a)^b = x^{ab}$
$(xy)^a = x^a y^a$
$(x/y)^a = x^a / y^a$
$x^{-1} = 1/x$
$x^{-a} = 1/x^a$

Remember:
Subtracting a negative is.....
...adding a positive!

Area of Triangle

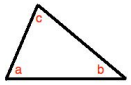
The area of a Triangle equals one half the base times the height.

$A = \frac{1}{2} \times b \times h$ or $A = (b \times h) / 2$



$A = \frac{1}{2} \times b \times h$
$A = \frac{1}{2} \times 4 \times 3$
$A = 6\ cm^2$

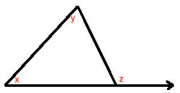
Interior Angles of a Triangle



For any triangle, $a + b + c = 180^\circ$

The three angles of any triangle add up to 180°.

Remote Interior Angles Theorem

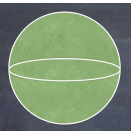


For any triangle, $x + y = z$

REMOTE INTERIOR ANGLES THEOREM: An exterior angle of a triangle is the sum of the two remote interior angles.

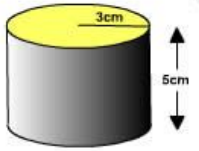
VUX	HOY
V ertical	H orizontal
U ndefined	O zero
x = #	y =#

Volume of a Sphere



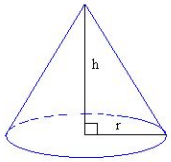
$V = \frac{4}{3}\pi r^3$ or $V = \frac{4\pi r^3}{3}$

Volume of cylinders

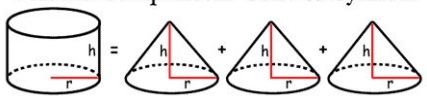


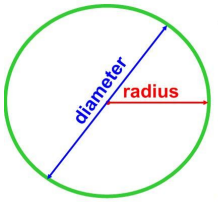
Volume = $\pi r^2 h$
$= \pi \times 3^2 \times 5$
$= \pi \times 9 \times 5$
$= 141.37\ cm^3$

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



Volume Comparison: Cone & Cylinder





Area of a circle = $\pi \times \text{radius}^2$

Circumference of a circle = $\pi \times$ diameter

remember that the diameter = 2 x radius

Perimeter = 2w + 2l

Pythagorean Theorem

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

Standard Form vs. Slope-Intercept Form	
$Ax + By = C$	$y = mx + b$

Distance Formula

$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$

Slope = $m = \frac{rise}{run} = \frac{y_2 - y_1}{x_2 - x_1}$