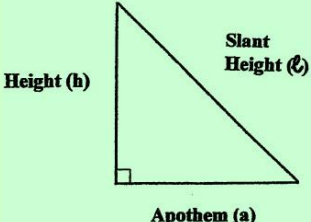


# SURFACE AREA AND VOLUME

|                                                                                                                                            |                                                                                                                                                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>KEY</b></p> <p>p = perimeter of base</p> <p><math>\ell</math> = slant height</p> <p>B = Area of Base</p>                             | <p><b>FOR PYRAMIDS</b></p>                                                                                                                                           |
| <p><b>PRISMS</b></p> <p>L.A. = <math>ph</math></p> <p>T.A. = <math>ph + 2B</math></p> <p><math>V = Bh</math></p>                           | <p><b>PYRAMIDS</b></p> <p>L.A. = <math>\frac{1}{2}p\ell</math></p> <p>T.A. = <math>\frac{1}{2}p\ell + B</math></p> <p><math>V = \frac{1}{3}Bh</math></p>                                                                                               |
| <p><b>CYLINDERS</b></p> <p>L.A. = <math>2\pi rh</math></p> <p>T.A. = <math>2\pi rh + 2\pi r^2</math></p> <p><math>V = \pi r^2 h</math></p> | <p><b>CONES</b></p> <p>L.A. = <math>\pi r\ell</math></p> <p>T.A. = <math>\pi r\ell + \pi r^2</math></p> <p><math>V = \frac{1}{3}\pi r^2 h</math></p>                                                                                                   |
| <p><b>SPHERES</b></p> <p>L.A. Not relevant</p> <p>T.A. = <math>4\pi r^2</math></p> <p><math>V = \frac{4}{3}\pi r^3</math></p>              | <p><b>HEMISPHERES</b></p> <p>L.A. Not relevant</p> <p>T.A. = <math>2\pi r^2</math> <u>OR</u> <math>3\pi r^2</math> (if base exposed)</p> <p><math>V = \frac{2}{3}\pi r^3</math></p>                                                                    |
| <p><b>CUBES</b></p> <p>L.A. = <math>4e^2</math></p> <p>T.A. = <math>6e^2</math></p> <p><math>V = e^3</math></p>                            | <p><b>FRUSTUMS</b></p> <p>L.A. = <math>\frac{1}{2}\ell (2\pi r_1 + 2\pi r_2)</math></p> <p>T.A. = <math>\frac{1}{2}\ell (2\pi r_1 + 2\pi r_2) + \pi r_1^2 + \pi r_2^2</math></p> <p><math>V = V_{\text{large cone}} - V_{\text{small cone}}</math></p> |