# Area Formulas (units ${ }^{2}$ ) 

* Note: b $\perp \mathrm{h}$

| Rectangle <br> $\mathrm{A}=\mathrm{bh}$ |  |  |
| :--- | :--- | :--- |
| Parallelogram |  |  |
| $\mathrm{A}=\mathrm{bh}$ |  |  |$\quad$| Triangle |
| :--- |
| $\mathrm{A}=1 / 2 \mathrm{bh}$ |, | Trapezoid |
| :--- |
| $\mathrm{A}=1 / 2 \mathrm{~h}\left(\mathrm{~b}_{1}+\mathrm{b}_{2}\right)$ |
| * Note: $\mathrm{b}_{1} \& \mathrm{~b}_{2}$ are the parallel sides |

## Surface Area (units ${ }^{2}$ ) \& Volume (units ${ }^{3}$ ) Formulas

|  | \# faces/bases shapes | Surface Area (units ${ }^{2}$ ) | Volume (units ${ }^{3}$ ) |
| :---: | :---: | :---: | :---: |
| Rectangular Prism | 6 faces <br> All rectangles | $\begin{gathered} \mathrm{SA}=2 \mathrm{l} \mathrm{w}+2 \mathrm{lh}+2 \mathrm{wh} \\ \mathrm{SA}= \end{gathered}$ <br> Find area of all faces and add together | $\begin{gathered} \mathrm{V}=\mathrm{Bh} \\ (\mathrm{~B}=\mathrm{lw}) \text { so } \mathrm{V}=\mathrm{lwh} \end{gathered}$ |
| Triangular Prism $\square$ | 5 faces <br> 2 triangles (bases) 3 rectangles | SA = <br> Find area of all faces and add together | $\mathrm{V}=\mathrm{Bh}$ <br> ( B is Area of triangle base: $\mathrm{B}=1 / 2 \mathrm{bh}$ ) |
| Rectangular Pyramid | $\begin{gathered} 5 \text { faces } \\ 4 \text { triangles } \\ 1 \text { rectangle (base) } \end{gathered}$ | $\mathrm{SA}=$ <br> Find area of all faces and add together | $\mathrm{V}=\frac{B h}{3}$ |
| Triangular Pyramid | $\begin{gathered} 4 \text { faces } \\ 4 \text { triangles } \end{gathered}$ | $\mathrm{SA}=$ <br> Find area of all faces and add together | $\mathrm{V}=\frac{B h}{3}$ |
| Cylinder | \# bases \& shape only 2 circle bases | $\mathrm{SA}=2 \pi \mathrm{r}^{2}+2 \pi \mathrm{rh}$ | $\mathrm{V}=\pi \mathrm{r}^{2} \mathrm{~h}$ |
|  | \# bases \& shape only <br> 1 circle base |  | $\mathrm{V}=\frac{\pi r^{2} h}{3}$ |
| Sphere |  |  | $\mathrm{V}=\frac{4 \pi r^{3}}{3}$ |

