| Geometric Figure | Surface Area | Volume |
| :---: | :---: | :---: |
| Cylinder | $\begin{aligned} & A_{\text {base }}=\pi r^{2} \\ & A_{\text {lateral surface }}=2 \pi r h \\ & \begin{aligned} A_{\text {total }} & =2 A_{\text {base }}+A_{\text {lateral surface }} \\ & =2 \pi r^{2}+2 \pi r h \end{aligned} \end{aligned}$ | $V=\left(A_{\text {base }}\right)(\text { height })$ $V=\pi r^{2} h$ |
| Sphere | $A=4 \pi r^{2}$ | $V=\frac{4 \pi r^{3}}{3} \quad \text { or } \quad V=\frac{4}{3} \pi r^{3}$ |
| Cone | $\begin{aligned} & A_{\text {base }}=\pi r^{2} \\ & \begin{aligned} & A_{\text {lateral surface }}=\pi r s \\ & A_{\text {total }}=A_{\text {base }}+A_{\text {lateral surface }} \\ &=\pi r^{2}+\pi r s \end{aligned} \end{aligned}$ | $\begin{aligned} & V=\frac{\left(A_{\text {base }}\right)(\text { height })}{3} \\ & V=\frac{\pi r^{2} h}{3} \quad \text { or } \quad V=\frac{1}{3} \pi r^{2} h \end{aligned}$ |
|  | $\begin{aligned} & A_{\text {base }}=b^{2} \\ & A_{\text {triangle }}=\frac{b s}{2} \\ & \begin{aligned} A_{\text {total }} & =A_{\text {base }}+4 A_{\text {triangle }} \\ & =b^{2}+2 b s \end{aligned} \end{aligned}$ | $V=\frac{\left(A_{\text {base }}\right)(\text { height })}{3}$ $V=\frac{b^{2} h}{3} \quad \text { or } \quad V=\frac{1}{3} b^{2} h$ |
| Rectangular prism | $A=2(w h+l w+l h)$ | $V=\left(A_{\text {base }}\right)(\text { height })$ $V=l w h$ |
| Triangular prism | $\begin{aligned} & A_{\text {base }}=\frac{b l}{2} \\ & A_{\text {rectangles }}=a h+b h+c h \\ & \begin{aligned} A_{\text {total }} & =2 A_{\text {base }}+A_{\text {rectangles }} \\ & =b l+a h+b h+c h \end{aligned} \end{aligned}$ | $V=\left(A_{\text {base }}\right)(\text { height })$ $V=\frac{b l h}{2} \quad \text { or } \quad V=\frac{1}{2} b l h$ |

