# Three-Dimensional Solids Toolkit

| | Volume | Surface Area |
|---|---|---|
| **Prisms** | $V = \underline{\text{Area}}$ of base $\times$ height of prism | SA = Area of all the faces added together |
| **Cylinders** | Area of circle $\rightarrow$ $V = \boxed{\pi r^2} \cdot$ height of cylinder | circumference of a circle $\rightarrow$ $SA = 2\pi r^2 + \boxed{2\pi r} \cdot$ height of cylinder |
| **Pyramids** | $V = \frac{1}{3} \cdot$ area of base $\cdot$ height of pyramid | SA = Area of base + area of triangles (This involves finding slant height) |

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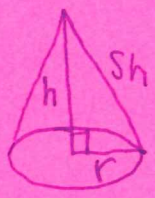
| **Cones** | $V = \frac{1}{3} \cdot \pi r^2 \cdot$ height of cylinder | $SA = \pi r^2 + \pi r \cdot sh$   |
| **Spheres** | $V = \frac{4}{3} \cdot \pi \cdot r^3$ | $SA = 4 \pi r^2$ |
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