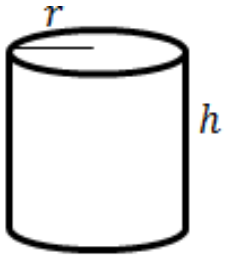
Possible Solutions

A cylinder is labeled with the radius and height.



Which of the following represents the volume of the cylinder?

a) V = Bh or V = $\pi r^2 h$, which means the area of the base (πr^2) times the height (h).

b) V = Bh or V = $2\pi rh$, which means the area of the base ($2r\ \pi$) times the height (h).

c) V = Bh or V = πdh, which means the area of the base (πd) times the height (h).

d) V = Bh or V = πrh^2, which means the area of the base (πr) times the height (h^2).

- The correct solution is a) V = Bh or V = $\pi r^2 h$, which means the area of the base (πr^2) times the height (h) because the base of the cylinder is a circle, so the area of the base is $B = \pi r^2$.