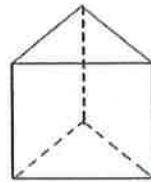


Volume of Prisms and Cylinders

Volume of Prisms and Cylinders = Bh

B = Area of base (base is one of the parallel sides)

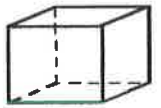
h = height (distance between parallel sides)



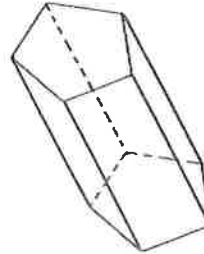
Triangular Prism



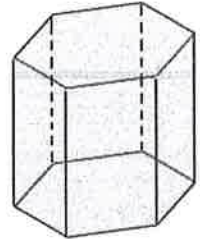
Rectangular Prism



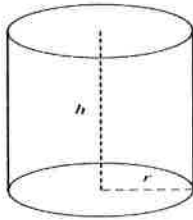
Cube



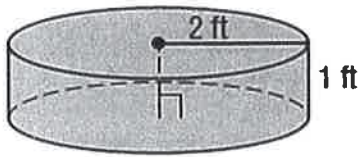
Pentagonal Prism



Hexagonal Prism



cylinder

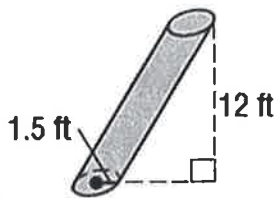


A)

$$B = \pi(2)^2 = 4\pi$$

$$V = 4\pi(1) =$$

$$V = 12.57 \text{ ft}^3$$

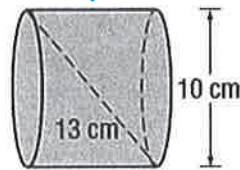


B)

$$A = \pi(1.5)^2 = 2.25\pi \text{ ft}^2$$

$$V = 2.25\pi(12) = 27\pi$$

$$V = 84.8 \text{ ft}^3$$



C)

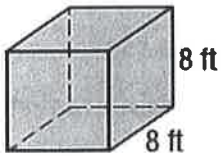
$$A = 5^2 \pi = 25\pi \text{ cm}^2$$

$$10^2 + x^2 = 13^2$$

$$x^2 = 69$$

$$x = 8.307$$

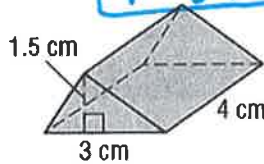
$$V = 25\pi(8.307) = 652.4 \text{ cm}^3$$



D)

$$B = 8(8) = 64 \text{ ft}^2$$

$$V = 64(8) = 512 \text{ ft}^3$$

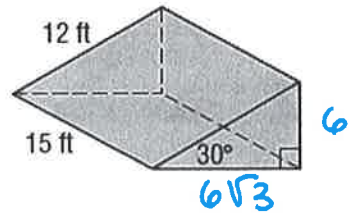


E)

$$B = \frac{1}{2}(3)(1.5) = 2.25 \text{ cm}^2$$

$$V = 2.25(4)$$

$$V = 9 \text{ cm}^3$$

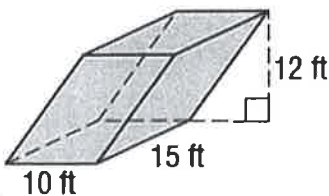


F)

$$B = \frac{1}{2}(6\sqrt{3})(6) = 31.177 \text{ ft}^2$$

$$V = 31.177(15)$$

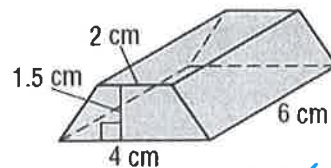
$$V = 467.66 \text{ ft}^3$$



H)

$$B = 10(15) = 150 \text{ ft}^2$$

$$V = 150(12) = 1800 \text{ ft}^3$$

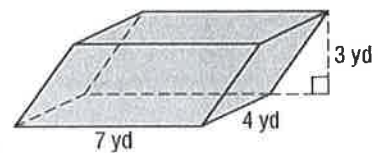


I)

$$B = \frac{1}{2}(2+4)(1.5) = 4.5 \text{ cm}^2$$

$$V = 4.5(6)$$

$$V = 27 \text{ cm}^3$$



$$B = 7(3) = 21 \text{ yd}^2$$

$$V = 21(4) = 84 \text{ yd}^3$$