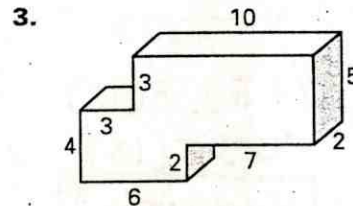
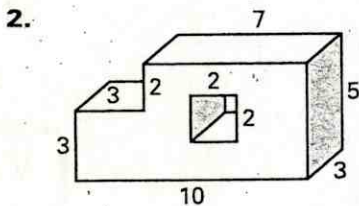
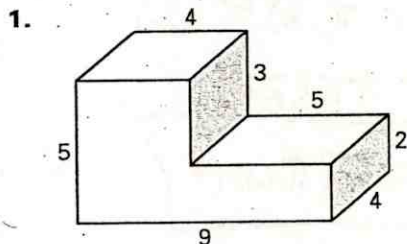


LESSON 12.4

Practice

For use with pages 819-825

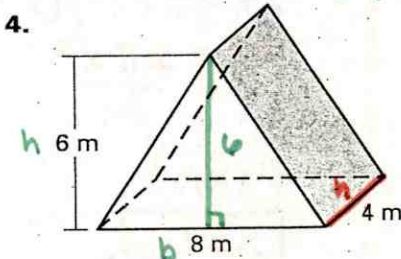
Find the volume of the solid by determining how many unit cubes are contained in the solid.



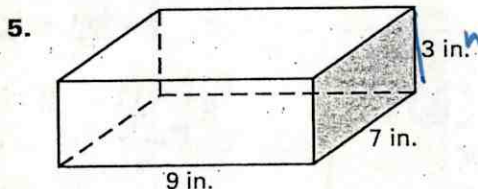
$V = Bh$

$V = \pi r^2 h$

Find the volume of the right prism or right cylinder. Round your answer to two decimal places.

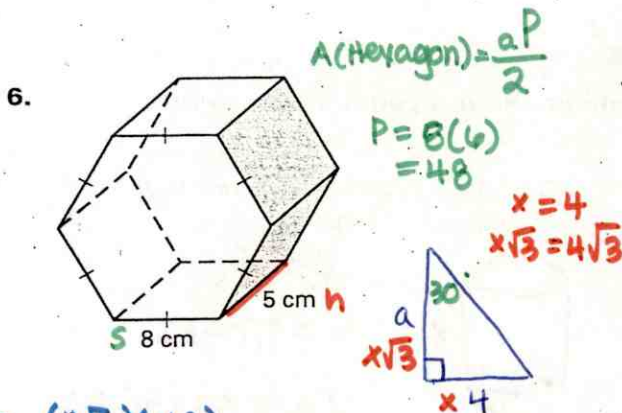


$A(\Delta) = \frac{bh}{2}$
 $B = \frac{8(6)}{2} = 24$
 $V = 24(4)$
 $V = 96 \text{ m}^3$
 $h = 4$

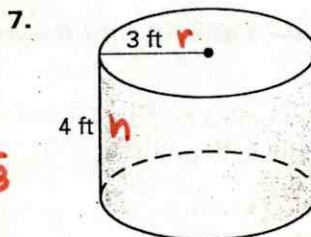


$V = 9(7)(3)$
 $V = 189 \text{ in}^3$

$B = 9(7)$
 $= 63$
 $h = 3$
 $V = 63(3)$



$A(\text{Hexagon}) = \frac{aP}{2}$
 $P = 6(5) = 30$
 $x = 4$
 $x\sqrt{3} = 4\sqrt{3}$
 $B = \frac{(4\sqrt{3})(30)}{2} = 96\sqrt{3}$
 $V = 96\sqrt{3}(5)$
 $V = 480\sqrt{3} \text{ cm}^3$
 $h = 5$

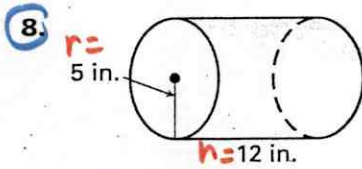


$V = \pi(3)^2(4)$
 $V = 36\pi \text{ ft}^3$

LESSON
12.4

Practice *continued*
For use with pages 819-825

$V = \pi r^2 h$



$V = \pi(5)^2(12)$
 $= 25\pi(12)$
 $V = 300\pi \text{ in}^3$

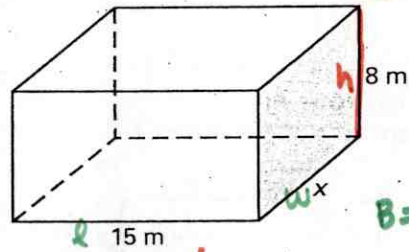


$V = \pi(2)^2(22)$
 $= 4\pi(22)$
 $V = 88\pi \text{ cm}^3$

Find the length x using the given volume V .

$V = Bh$

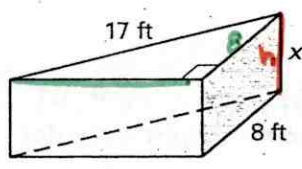
10. $V = 1440 \text{ m}^3$



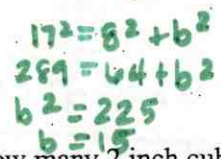
$V = lwh$

$1440 = 15x(8)$
 $1440 = 120x$
 $x = 12 \text{ m}$

11. $V = 360 \text{ ft}^3$

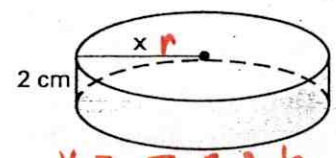


$B = \frac{bh}{2} = \frac{15(8)}{2}$
 $B = 60$



$V = Bh$
 $360 = 60x$
 $x = 60 \text{ ft}$

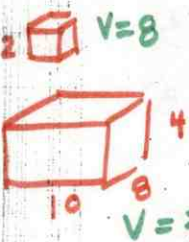
12. $V = 72\pi \text{ cm}^3$



$V = \pi r^2 h$
 $72\pi = \pi(x^2)(2)$
 $\frac{72\pi}{2\pi} = \frac{2\pi x^2}{2\pi}$
 $36 = x^2$
 $x = 6 \text{ cm}$

13. Multiple Choice How many 2 inch cubes can fit completely in a box that is 10 inches long, 8 inches wide, and 4 inches tall?

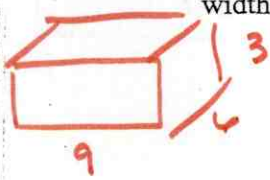
- A. 24 B. 32 C. 40 D. 320



$320/8 = 40$

Sketch the described solid and find its volume. Round your answer to two decimal places.

14. A rectangular prism with a height of 3 feet, width of 6 feet, and length of 9 feet.



$V = Bh$
 $= lwh$
 $V = 9(6)(3)$
 $V = 162 \text{ ft}^3$

15. A right cylinder with a radius of 4 meters and a height of 8 meters.



$V = Bh$
 $= \pi r^2 h$
 $V = \pi(4)^2(8)$
 $V = 128\pi \text{ m}^3$