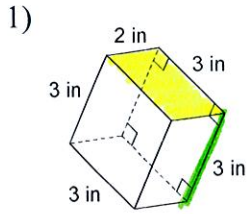


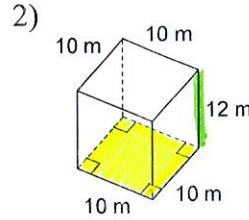
5.5 - Volume of Prisms, Cylinders & Spheres

Find the volume of each figure. Round your answers to the nearest tenth, if necessary.



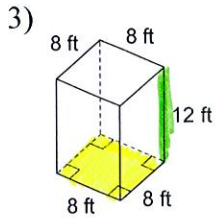
$$(2 \cdot 3) \cdot 3$$

18 in<sup>3</sup>



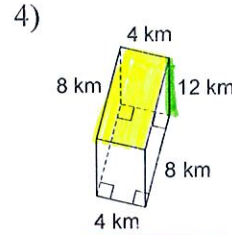
$$(10 \cdot 10) \cdot 12$$

1200 m<sup>3</sup>



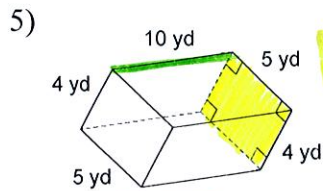
$$(8 \cdot 8) \cdot 12$$

768 ft<sup>3</sup>



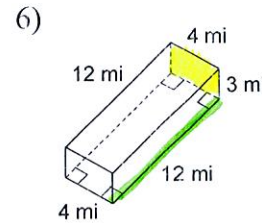
$$(4 \cdot 8) \cdot 12$$

384 km<sup>3</sup>



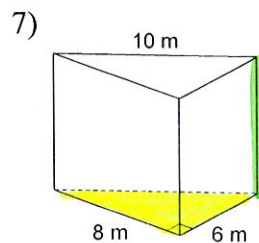
$$(5 \cdot 4) \cdot 10$$

200 yd<sup>3</sup>



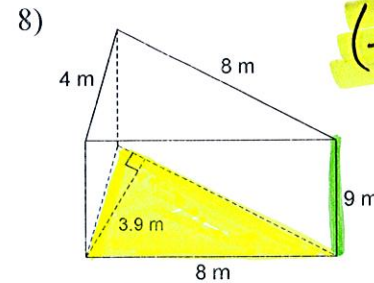
$$(4 \cdot 3) \cdot 12$$

144 mi<sup>3</sup>



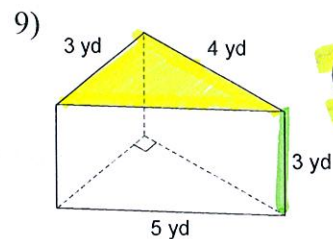
$$\left(\frac{1}{2} \cdot 6 \cdot 8\right) \cdot 10$$

168 m<sup>3</sup>



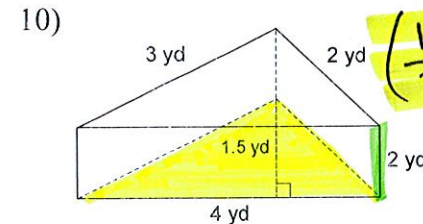
$$\left(\frac{1}{2} \cdot 3.9 \cdot 8\right) \cdot 9$$

140.4 m<sup>3</sup>



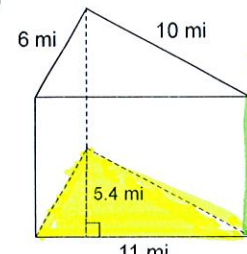
$$\left(\frac{1}{2} \cdot 3 \cdot 4\right) \cdot 5$$

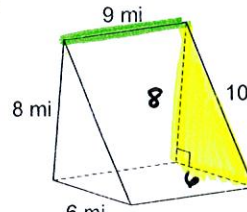
18 yd<sup>3</sup>



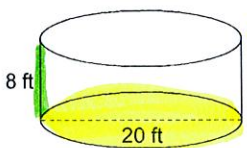
$$\left(\frac{1}{2} \cdot 1.5 \cdot 4\right) \cdot 2$$

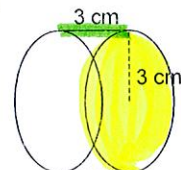
6 yd<sup>3</sup>

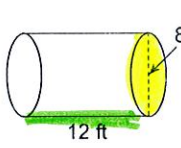
11)   $\left(\frac{1}{2}(5.4)(11)\right) \cdot 12$   
 $356.4 \text{ mi}^3$

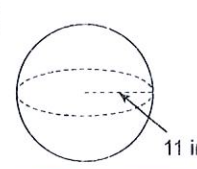
12)   $\left(\frac{1}{2}(6)(8)\right) \cdot 9$   
 $216 \text{ mi}^3$

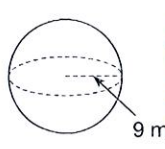
Find the volume of each figure. Leave your answers in terms of  $\pi$ .

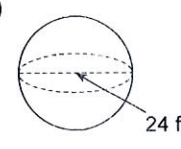
13)   $(\pi 10^2) \cdot 8$   
 $800\pi \text{ ft}^3$

14)   $(\pi 3^2) \cdot 3$   
 $27\pi \text{ cm}^3$

15)   $(\pi 4^2) \cdot 12$   
 $192\pi \text{ ft}^3$

16)   $\frac{4}{3}\pi(11)^3$   
 $1774.67\pi \text{ in}^3$

17)   $\frac{4}{3}\pi(9)^3$   
 $972\pi \text{ m}^3$

18)   $\frac{4}{3}\pi(24)^3$   
 $2304\pi \text{ ft}^3$

19) A rectangular prism measuring 8 in and 5 in along the base and 10 in tall.

$400 \text{ in}^3$   $(8 \cdot 5) \cdot 10$

20) A prism 2 mi tall with a right triangle for a base with side lengths 3 mi, 4 mi, and 5 mi.

$12 \text{ mi}^3$   $\left(\frac{1}{2} \cdot 3 \cdot 4\right) \cdot 2$

21) A cylinder with a diameter of 4 yd and a height of 10 yd.

$40\pi \text{ yd}^3$   $r=2$   
 $(\pi 2^2) \cdot 10$

22) A sphere with a radius of 9 cm.

$972\pi \text{ cm}^3$   $\frac{4}{3}\pi(9)^3$