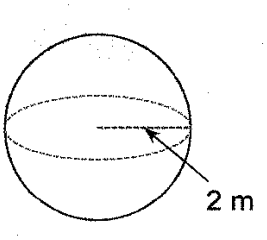
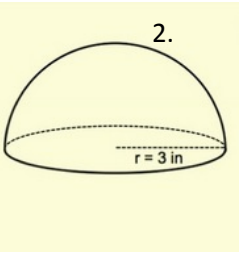
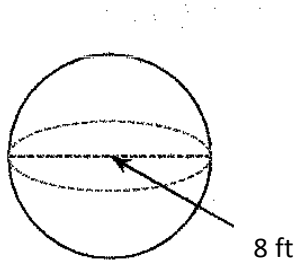
Geometry Honors: Target 12.4 Volume of Spheres and Composite Solids Name_____

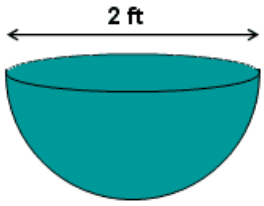
Find the volume. Keep answers exact (terms of π)

1. 

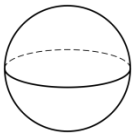
2. 

Find the volume. Round answer to hundredths (two decimal places).

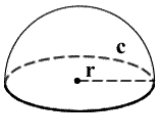
3. 

4. 

5. **FINDING A DIAMETER** The volume of a sphere is 36π cubic feet. What is the diameter of the sphere?

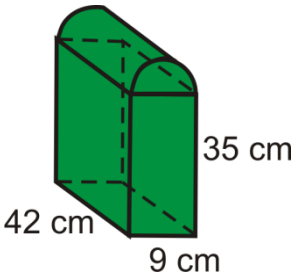


6. The volume of a hemisphere is 216π cubic inches. Find the radius of the sphere.

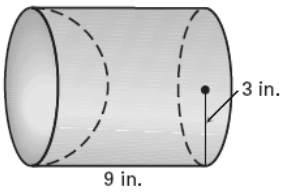


Find the **volume** of the solid. Round your answer to two decimal places, if necessary.

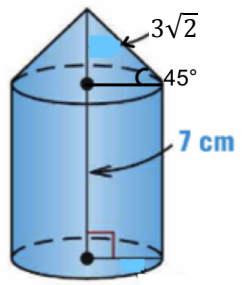
7.



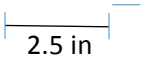
8.



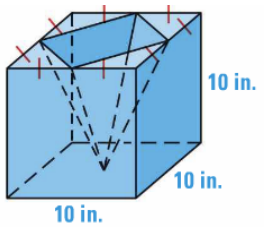
9.



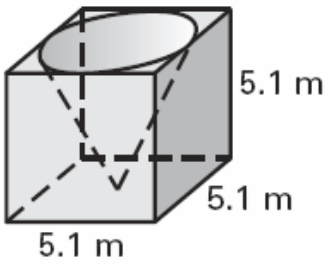
10. A cylinder contains 3 tennis balls.
Find the amount of empty space/air that is inside the container.



11.



12.



1) $\frac{32}{3}\pi\ m^3$ 2) $18\pi\ in^3$ 3) $\approx 268.08\ ft^3$ 4) $\approx 2.09\ ft^3$ 5) r = 3 ft 6) $r \approx 6.87\ in$ 7) $13{,}230 + 425.25\pi \approx 14565.96 cm^3$
8) $63\pi \approx 197.92\ in^3$ 9) $72\pi \approx 226.19\ cm^3$ 10) $3.90625\pi \approx 12.27 in^3$ 11) $833.\overline{3}\ in^3$ 12) $\approx 97.92\ m^3$