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## Surface Areas and Volumes of Spheres

Find the surface area of each sphere or hemisphere. Round to the nearest tenth.
1.

2.

3. hemisphere: radius of great circle $=8.4 \mathrm{in}$.
4. sphere: area of great circle $\approx 29.8 \mathrm{~m}^{2}$

Find the volume of each sphere or hemisphere. Round to the nearest tenth.

6.

7. hemisphere: diameter $=18 \mathrm{~mm}$
8. sphere: circumference $\approx 36$ yd
9. sphere: radius $=12.4 \mathrm{in}$.

