



# Grade 8

## Topic: Volumes of Spheres

### Instructions

Solve the following problems. Use the formula for the volume of a sphere:

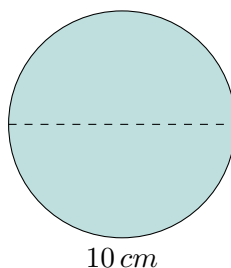
$$V = \frac{4}{3}\pi r^3$$

### Practice Problems

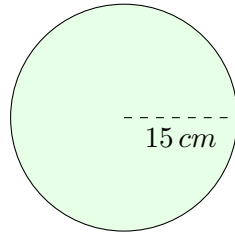
1. Find the volume of a sphere with radius  $5\text{ cm}$ .
2. Find the volume of a sphere with diameter  $12\text{ m}$ .
3. A basketball has a radius of  $12\text{ cm}$ . Find its volume (use  $\pi \approx 3.14$ ).
4. A spherical balloon has a diameter of  $18\text{ cm}$ . What is its volume?
5. A sphere has a volume of  $113.1\text{ cm}^3$ . Find its radius (use  $\pi \approx 3.14$ ).

### Word Problems with Shapes

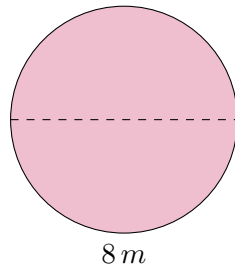
1. A ball has a diameter of  $10\text{ cm}$ . Find its volume.



2. A globe has a radius of  $15\text{ cm}$ . Calculate its volume.



3. A spherical water tank has a diameter of  $8\text{ m}$ . How much water can it hold?



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