Geometric Measurement Worksheet 2 - Answers

1. Find the volume of a sphere of radius 9 $\,$ cm.

 3053.6 cm^3

2. Find the volume of a sphere of radius 17 mm.

 $20,580 \text{ mm}^3$

3. Find the radius of a sphere with a volume of 1000 cm^3 .

 $6.2~\mathrm{cm}$

4. Find the radius of a sphere with a volume of 5000 mi³.

10.6 mi

5. Find the volume of a hemisphere with a radius of 10 cm.

 2094.4 cm^3 .

6. Find the volume of a hemisphere with a diameter of 22.7 ft.

 3062.3 ft^3

7. Find the radius of a hemisphere with a volume of 5.0 m^3 .

1.3 m

8. Derive the formula for the volume of a regular tetrahedron with an edge length of e. (Hint: use the volume of a pyramid, $V = \frac{1}{3}Bh$.)

$$V = \frac{\sqrt{2}}{12}e^3$$

9. Find the volume of a tetrahedron with edge 12 mm.

 203.6 mm^3

10. Find the volume of a tetrahedron with edge 100 m.

 $117,851 \text{ m}^3$

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