

Geometric Measurement Worksheet 2 - Answers

1. Find the volume of a sphere of radius 9 cm.

$$3053.6 \text{ cm}^3$$

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 .

$$6.2 \text{ cm}$$

4. Find the radius of a sphere with a volume of 5000 mi^3 .

$$10.6 \text{ mi}$$

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

$$2094.4 \text{ cm}^3.$$

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

$$3062.3 \text{ ft}^3$$

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

$$1.3 \text{ m}$$

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.

$$203.6 \text{ mm}^3$$

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

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