

Finding the Radius Part 2 (Spheres)

$$\textcircled{1} \quad V = \frac{4}{3} \pi r^3$$

$$\frac{36\pi}{\pi} = \frac{\frac{4}{3} \pi r^3}{\pi}$$

$$3 \cdot 36 = \frac{4}{3} r^3 \cdot 3$$

$$\frac{108}{4} = \frac{4}{4} r^3$$

$$\sqrt[3]{27} = \sqrt[3]{r^3}$$

$$\boxed{3 \text{ mm} = r}$$

← Different ways
of clearing
 $\frac{4}{3}$

$$\textcircled{2} \quad V = \frac{4}{3} \pi r^3$$

$$\frac{4,500\pi}{\pi} = \frac{\frac{4}{3} \pi r^3}{\pi}$$

$$4500 = \frac{4}{3} r^3$$

$$\frac{4500}{\frac{4}{3}} = \frac{\frac{4}{3} r^3}{\frac{4}{3}}$$

$$\sqrt[3]{3375} = \sqrt[3]{r^3}$$

$$\boxed{15 \text{ ft} = r}$$

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

$$\frac{7,776\pi}{\pi} = \frac{\frac{4}{3} \pi r^3}{\pi}$$

$$7,776 = \frac{4}{3} r^3$$

$$\frac{7,776}{\frac{4}{3}} = \frac{\frac{4}{3} r^3}{\frac{4}{3}}$$

$$\sqrt[3]{5,832} = \sqrt[3]{r^3}$$

$$\boxed{18 \text{ km} = r}$$

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

$$\frac{12,348\pi}{\pi} = \frac{\frac{4}{3} \pi r^3}{\pi}$$

$$12,348 = \frac{4}{3} r^3$$

$$\frac{12,348}{\frac{4}{3}} = \frac{\frac{4}{3} r^3}{\frac{4}{3}}$$

$$\sqrt[3]{9261} = \sqrt[3]{r^3}$$

$$\boxed{21 \text{ in} = r}$$

$$\textcircled{5} \quad V = \frac{4}{3} \pi r^3$$

$$1,259.8 = \frac{4}{3} \pi r^3$$

$$\frac{1,259.8}{4.1887} = \frac{4.1887}{4.1887} r^3$$

$$\sqrt[3]{300.7615} = \sqrt[3]{r^3}$$

$$\boxed{6.7 \text{ cm} \approx r}$$

$$\textcircled{6} \quad V = \frac{4}{3} \pi r^3$$

$$310.3 = \frac{4}{3} \pi r^3$$

$$\frac{310.3}{4.1887} = \frac{4.1887}{4.1887} r^3$$

$$\sqrt[3]{74.0802} = \sqrt[3]{r^3}$$

$$\boxed{4.2 \text{ m} \approx r}$$

$$\textcircled{7} \quad V = \frac{4}{3} \pi r^3$$

$$1,563.5 = \frac{4}{3} \pi r^3$$

$$\frac{1,563.5}{4.1887} = \frac{4.1887}{4.1887} r^3$$

$$\sqrt[3]{373.2661} = \sqrt[3]{r^3}$$

$$\boxed{7.2 \text{ in.} \approx r}$$

$$\textcircled{8} \quad V = \frac{4}{3} \pi r^3$$

$$1.4 = \frac{4}{3} \pi r^3$$

$$\frac{1.4}{4.1887} = \frac{4.1887}{4.1887} r^3$$

$$\sqrt[3]{.3342} = \sqrt[3]{r^3}$$

$$\boxed{0.7 \text{ yd} \approx r}$$