

Advanced Geometry

Geometry · Grade 7

● Easy · 10 Questions

Solve each problem. Show your work in the space provided. Write your answer on the line.

1. A triangular prism has a base area of 6 cm^2 and a length of 10 cm. Find its volume.

Answer: _____

2. A cylinder has radius 2 cm and height 5 cm. Find its volume. (Use $\pi \approx 3.14$.)

Answer: _____

3. A triangular prism has a triangle base with area 9 cm^2 and length 4 cm . Find the volume.

Answer: _____

4. A cylinder has radius 1 m and height 3 m . Find its volume. (Use $\pi \approx 3.14$.)

Answer: _____

5. A triangular prism has a base area of 15 cm^2 and length 6 cm . Find its volume.

Answer: _____

6. A cylinder has radius 3 cm and height 7 cm. Find its volume. ($\pi \approx 3.14$)

Answer: _____

7. Find the volume of a rectangular prism: $l=12$, $w=5$, $h=4$ (all cm).

Answer: _____

8. Find the volume of a cube with side 10 cm.

Answer: _____

9. A triangular prism has a base area of 20 cm^2 and length 8 cm. Find the volume.

Answer: _____

10. A cylinder has radius 4 cm and height 5 cm. Find its volume. ($\pi \approx 3.14$)

Answer: _____

Answer Key

Advanced Geometry — Easy

1. **60 cm³**

$$V = \text{base area} \times \text{length} = 6 \times 10 = 60 \text{ cm}^3.$$

2. **$\approx 62.8 \text{ cm}^3$**

$$V = \pi \times r \times r \times h = 3.14 \times 2 \times 2 \times 5 = 62.8 \text{ cm}^3.$$

3. **36 cm³**

$$V = 9 \times 4 = 36 \text{ cm}^3.$$

4. **$\approx 9.42 \text{ m}^3$**

$$V = \pi \times r \times r \times h = 3.14 \times 1 \times 1 \times 3 = 9.42 \text{ m}^3.$$

5. **90 cm³**

$$V = \text{base area} \times \text{length} = 15 \times 6 = 90 \text{ cm}^3.$$

6. **$\approx 197.82 \text{ cm}^3$**

$$V = \pi r^2 h = 3.14 \times 9 \times 7 = 197.82 \text{ cm}^3.$$

7. **240 cm³**

$$V = l \times w \times h = 12 \times 5 \times 4 = 240 \text{ cm}^3.$$

8. **1,000 cm³**

$$V = s^3 = 10^3 = 1,000 \text{ cm}^3.$$

9. **160 cm³**

$$V = 20 \times 8 = 160 \text{ cm}^3.$$

10. **$\approx 251.2 \text{ cm}^3$**

$$V = \pi r^2 h = 3.14 \times 16 \times 5 = 251.2 \text{ cm}^3.$$