

Raid 3: Volume Vault — Cracking the 3D Code

Directions: Choose the correct answer (A–D) for each question.

1. Find the volume of a rectangular prism with length 8 cm, width 5 cm, and height 3 cm.

- A) 120 cm^3
- B) 100 cm^3
- C) 130 cm^3
- D) 140 cm^3

2. What is the volume of a cube with a side length of 4 cm?

- A) 64 cm^3
- B) 16 cm^3
- C) 32 cm^3
- D) 48 cm^3

3. A right prism has a base area of 20 cm^2 and a height of 10 cm. Find the volume.

- A) 100 cm^3
- B) 200 cm^3
- C) 220 cm^3
- D) 240 cm^3

4. What is the volume of a cylinder with a radius of 3 cm and a height of 7 cm? Use $\pi \approx 3.14$.

- A) 197.82 cm^3
- B) 138.5 cm^3
- C) 200 cm^3
- D) 154.26 cm^3

5. Find the volume of a sphere with radius 2 cm. Use $\pi \approx 3.14$.
- A) 33.49 cm^3
 - B) 25.12 cm^3
 - C) 29.26 cm^3
 - D) 18.84 cm^3
6. What is the volume of a cone with radius 5 cm and height 9 cm? Use $\pi \approx 3.14$.
- A) 235.5 cm^3
 - B) 471 cm^3
 - C) 188.4 cm^3
 - D) 314 cm^3
7. A pyramid has a base area of 30 cm^2 and a height of 6 cm. Find the volume.
- A) 60 cm^3
 - B) 70 cm^3
 - C) 50 cm^3
 - D) 80 cm^3
8. Find the volume of a rectangular prism with length 6 m, width 4 m, and height 2.5 m.
- A) 50 m^3
 - B) 60 m^3
 - C) 55 m^3
 - D) 65 m^3
9. A cylinder has a diameter of 10 cm and a height of 10 cm. Use $\pi \approx 3.14$.
- A) 785 cm^3
 - B) 314 cm^3
 - C) 500 cm^3
 - D) 628 cm^3



10. A cube has a volume of 125 cm^3 . What is the length of one side?

- A) 6 cm
- B) 4 cm
- C) 5 cm
- D) 3 cm

11. A cylinder has a diameter of 6 cm and height of 10 cm. Find its volume. Use $\pi \approx 3.14$.

- A) 282.6 cm^3
- B) 565.2 cm^3
- C) 113.1 cm^3
- D) 424.1 cm^3

12. Find the volume of a cone with diameter 10 cm and height 12 cm. Use $\pi \approx 3.14$.

- A) 314 cm^3
- B) 628 cm^3
- C) 157 cm^3
- D) 188.4 cm^3

13. A sphere has a diameter of 12 cm. What is its volume? Use $\pi \approx 3.14$.

- A) 904.32 cm^3
- B) 723.4 cm^3
- C) 500.2 cm^3
- D) 659.73 cm^3

14. A right prism has a triangular base with base = 4 cm, height = 5 cm and prism height = 10 cm. Find the volume.

- A) 100 cm^3
- B) 120 cm^3
- C) 80 cm^3
- D) 60 cm^3



15. Find the volume of a pyramid with a square base of 6 cm and height 9 cm.

- A) 108 cm^3
- B) 324 cm^3
- C) 216 cm^3
- D) 150 cm^3

16. A cone has radius 7 cm and height 3 cm. Find the volume. Use $\pi \approx 3.14$.

- A) 154 cm^3
- B) 160.16 cm^3
- C) 120.7 cm^3
- D) 125.5 cm^3

17. What is the volume of a sphere with a radius of 4.2 cm? Use $\pi \approx 3.14$.

- A) 310.3 cm^3
- B) 320.4 cm^3
- C) 329.9 cm^3
- D) 330.6 cm^3

18. A cylinder has radius 4 cm and height 8 cm. Find the volume. Use $\pi \approx 3.14$.

- A) 402.12 cm^3
- B) 384.16 cm^3
- C) 410.24 cm^3
- D) 423.6 cm^3

19. Find the volume of a cone with radius 3 cm and height 14 cm. Use $\pi \approx 3.14$.

- A) 131.88 cm^3
- B) 123.34 cm^3
- C) 158.5 cm^3
- D) 165.2 cm^3



20. A prism has a rectangular base of 7 cm by 6 cm and height 5 cm. What is the volume?

A) 210 cm^3

B) 220 cm^3

C) 215 cm^3

D) 225 cm^3

Answer Key

1. A

2. A

3. B

4. D

5. A

6. A

7. A

8. B

9. A

10. C

11. B

12. A

13. A

14. A

15. A

16. C

17. D

18. B

19. A

20. A

