

Volume Answers

①

Ex 1

$V = \text{Area of face} \times \text{length}$

- 1) 175 cm^3 2) 1615 cm^3 3) 96 m^3 4) 12 m^3
5) 2760 cm^3 6) 80 cm^3 7) 16 m^2 8) 3927 cm^3
9) 3.6 Km^3 10) 612 cm^3 11) 3.3 cm^3 12) 14.28 m^3
13) 112 cm^3 14) 96 cm^3 15) 10 m^3 16) 26.28 m^3
17) 13.26 m^3 18) 41.44 m^3

Ex 2 $V = \text{length} \times \text{breadth} \times \text{height}$

- 1) 27 cm^3 2) 729 cm^3 3) 343 cm^3 4) 96 cm^3
5) 180 cm^3 6) 42 cm^3 7) 144 cm^3 8) 2744 cm^3
9) 252 cm^3 10) 8000 cm^3 11) 720 cm^3 12) 90 cm^3

Ex 3

②

1) $V_1 = 5 \times 6 \times 11 = 330$ $V_2 = 20 \times 5 \times 7 = 700$ 2) $V_1 = 12 \times 4 \times 6 = 288$ $V_2 = 15 \times 6 \times 8 = 720$

total = 1030 cm^3

total volume = 1008 cm^3

3) $V_1 = 64$ $V_2 = 216$

total = 270 cm^3

4) $V_1 = 36$ $V_2 = 98$

total = 44 cm^3

5) $V_1 = 200$ $V_2 = 2 \times 5 \times 4 = 160$

total = 360 cm^3

6) $V_1 = 24 \times 6 \times 8 = 1152$ $V_2 = 18 \times 22 \times 8 = 1760$

total = 3296 cm^3

7) $V_1 = 23 \times 5 \times 7.1 \times 9.3 = 1551.705$ $V_2 = 5.4 \times 7.1 \times 3.4 = 130.356$

total = 1682.061 cm^3

8) $V_1 = 8.4 \times 0.3 \times 0.9 = 2.268$ $V_2 = 0.4 \times 0.3 \times 1.4 = 0.168$

total = 2.436 cm^3

9) $V_1 = 25 \times 8 \times 9$ $V_2 = 7 \times 8 \times 10$
 $= 1800$ $= 560$

total = 2360 cm^3

10) $V_1 = 50 \times 6 \times 10$ $V_2 = 5 \times 6 \times 20$
 $= 3000$ $= 600$

total = 3600 cm^3

11) $V_1 = 22 \times 3 \times 5$ $V_2 = 6 \times 3 \times 11$
 $= 330$ $= 198$

total = 528 cm^3

12) $V_1 = 68 \times 18 \times 15$ $V_2 = 18 \times 15 \times 27$
 $= 18360$ $= 7290$

total = 25650 cm^3

13) $V_1 = 475 \times 56 \times 54$ $V_2 = 92 \times 56 \times 96$
 $= 1436400$ $= 333312$

total = 1769712 cm^3

14) $V_1 = 18 \times 4 \times 1.8 \times 2.1$ $V_2 = 2.3 \times 1.8 \times 10 \times 8$
 $= 69.552$ $= 44.712$

total = 114.264 cm^3

$$15) \quad V_1 = 24.7 \times 6.1 \times 8.3 \quad V_2 = 6.4 \times 6.1 \times 13.2 \quad \textcircled{4}$$
$$= 1250.561 \quad = 515.328$$

$$\text{total} = 1765.889$$

$$16) \quad V_1 = 4.4 \times 1.1 \times 1.1 \quad V_2 = 1.1 \times 1.1 \times 1.1$$
$$= 5.324 \quad = 1.331$$

$$\text{total} = 6.655$$

Ex 4 Volume of cylinder = $\pi r^2 h$ ($\pi = 3.14$)
 $r = \text{radius}$

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|--------------|------------|-------------|
| 1) 552.64 | 2) 254.34 | 3) 3215.36 |
| 4) 3617.28 | 5) 21540.4 | 6) 8478 |
| 7) 3052.08 | 8) 310.86 | 9) 699.435 |
| 10) 17182.08 | 11) 113.04 | 12) 2923.34 |

Ex 5

5

Volume = Area of face \times length

face = triangle: $A = \frac{1}{2}(b \times h)$

1) $A = \frac{1}{2}(7 \times 12)$ 2) 36 cm^2 3) 304 cm^3
 $= 42$

Volume = 20×42
 $= 840 \text{ cm}^3$

4) 47424 cm^3 5) 297 cm^3 6) 165 cm^3

7) 504 cm^3 8) 4284 cm^3 9) 532 cm^3

10) 38912 cm^3 11) 1957.5 cm^3 12) 288 cm^3