

Volume of Rectangular Prism - Practice Worksheet

Name: _____ Date: _____

Instructions: Find the volume of each rectangular prism using the formula $V = l \times w \times h$. Show your working and include the correct cubic units in every answer.

1. A rectangular prism has length = 3 cm, width = 2 cm, height = 4 cm. Find its volume.
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2. A rectangular prism has length = 5 m, width = 5 m, height = 5 m. Find its volume.
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3. A box measures 8 in long, 3 in wide, and 2 in tall. What is its volume?
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4. A rectangular prism has length = 10 ft, width = 4 ft, height = 6 ft. Find its volume.
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5. A fish tank is 60 cm long, 30 cm wide, and 35 cm tall. What is its volume in cm^3 ?
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6. A rectangular prism has a base area of 24 m^2 and a height of 7 m. Find its volume.
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7. A shipping crate is 2.5 m long, 1.2 m wide, and 1.8 m tall. Find its volume.
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8. A rectangular prism has volume = 120 cm^3 , length = 10 cm, and width = 4 cm. Find the height.
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9. Two rectangular prisms: Prism A is 6 cm x 4 cm x 5 cm; Prism B is 8 cm x 3 cm x 5 cm. Which has the greater volume and by how much?
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10. A rectangular room is 12 ft long, 10 ft wide, and 9 ft tall. A rectangular pillar inside it measures 1 ft x 1 ft x 9 ft. What is the usable air volume of the room (room volume minus pillar volume)?
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Answer Key

1. 24 cm^3
2. 125 m^3
3. 48 in^3
4. 240 ft^3
5. $63,000 \text{ cm}^3$
6. 168 m^3
7. 5.4 m^3
8. 3 cm
9. Prism A = 120 cm^3 , Prism B = 120 cm^3 . They are equal.
10. Room = $1,080 \text{ ft}^3$; Pillar = 9 ft^3 ; Usable volume = $1,071 \text{ ft}^3$

