



Estimate Volume

Grade 5 Measurements & Data Worksheet

LET'S MAKE LEARNING FUN

1. Michelle has a reading table whose volume is 80 cubic feet. The length and width of the reading table are 5 ft and 4 ft respectively. Estimate the height of the rading table.

Solution:

2. Leo has two boxes labeled A and B. Box A with dimensions of $3.6 \text{ cm} \times 22.7 \text{ cm} \times 18.3 \text{ cm}$ Box B measures $8.1 \text{ cm} \times 14.6 \text{ cm} \times 22.9 \text{ cm}$. Which box has the greater volume?

Solution:

3. Maxwell has a box with the dimensions of $11 \text{ in} \times 6 \text{ in} \times 12 \text{ in}$. He has a rectangular prism-shaped oven whose volume is 800 cubic inches. Does the oven fit in the box?

Solution:

4. Estimate the volume of each rectangular prism with the given measurements.

a. $21 \text{ in} \times 20 \text{ in} \times 20 \text{ in}$

d. $41 \text{ ft} \times 18 \text{ ft in} \times 60 \text{ ft}$

b. $6.4 \text{ m} \times 6.1 \text{ m} \times 2.5 \text{ m}$

e. $92 \text{ mm} \times 16 \text{ mm} \times 86 \text{ mm}$

c. $5.2 \text{ cm} \times 9.8 \text{ cm} \times 7.5 \text{ cm}$

f. $7.8 \text{ yd} \times 17.3 \text{ yd} \times 5.9 \text{ yd}$

Solution:

a.

d.

b.

e.

c.

f.

5. Explain how you can estimate the volume of a bedroom if the bedroom is a rectangular prism and dimensions of the room are 9.5 m, 10 m, and 7.3 m. Estimate the volume of the room.

Solution:

6. Write either TRUE or FALSE to indicate whether the unit of measurement is a valid unit to measure volume or not.

a. cm^2

b. cubic inches

c. m^3

d. miles

Solution:

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Grade 5 Measurements & Data Worksheet

1. Michelle has a reading table whose volume is 80 cubic feet. The length and width of the reading table are 5 ft and 4 ft respectively. Estimate the height of the rading table.

Solution:

4 ft

2. Leo has two boxes labeled A and B. Box A with dimensions of 3.6 cm \times 22.7 cm \times 18.3 cm Box B measures 8.1 cm \times 14.6 cm \times 22.9 cm. Which box has the greater volume?

Solution:

B

3. Maxwell has a box with the dimensions of 11 in \times 6 in \times 12 in. He has a rectangular prism-shaped oven whose volume is 800 cubic inches. Does the oven fit in the box?

Solution:

No

4. Estimate the volume of each rectangular prism with the given measurements.
- | | |
|---|--|
| a. 21 in \times 20 in \times 20 in | d. 41 ft \times 18 ft in \times 60 ft |
| b. 6.4 m \times 6.1 m \times 2.5 m | e. 92 mm \times 16 mm \times 86 mm |
| c. 5.2 cm \times 9.8 cm \times 7.5 cm | f. 7.8 yd \times 17.3 yd \times 5.9 yd |

Solution:

- | | |
|---------------------------------|-------------------------------------|
| a. 8,000 cubic inches | d. 48,000 cubic feet |
| b. 108 cubic meters | e. 162,000 cubic millimetres |
| c. 400 cubic centimeters | f. 816 cubic yards |

5. Explain how you can estimate the volume of a dining room if the dining room is a rectangular prism and dimensions of the room are given as: 9.5 m, 10 m, and 7.3 m. Estimate the volume of the room.

Solution:

$V = 9.5 \text{ m} \times 10 \text{ m} \times 7.3 \text{ m}$ is estimated to:

$V = 9.5 \text{ m} \times 10 \text{ m} \times 7.3 \text{ m} = 700 \text{ cubic meters}$

6. Write either TRUE or FALSE to indicate whether the unit of measurement is a valid unit to measure volume or not.

- a. cm^2
- b. cubic inches
- c. m^3
- d. miles

Solution:

- a. **FALSE**
- b. **TRUE**
- c. **TRUE**
- d. **FALSE**