

LESSON 2 WORKSHEET SURVIVAL SCIENCE

ANSWERS

SURVIVING THE FLOOD



1. Calculate the volume/capacity of Noah's Ark in cubic cubits using the Biblical measures.

- | | |
|-------------------|-----------------|
| • 300 CUBITS LONG | 137 METERS LONG |
| • 50 CUBITS WIDE | 23 METERS WIDE |
| • 30 CUBITS TALL | 14 METERS TALL |

EQUATIONS: $300 \text{ cubits} \times 50 \text{ cubits} \times 30 \text{ cubits} = \text{ANSWER: } 450,000 \text{ cu}^3$

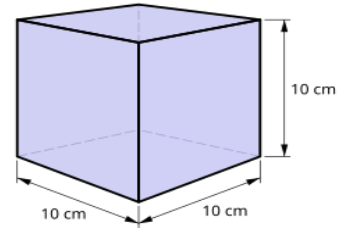
$137 \text{ meters} \times 23 \text{ meters} \times 14 \text{ meters} = \text{ANSWER: } 44,114 \text{ m}^3$

CONVERSIONS WITHIN THE METRIC SYSTEM (BASE 10)

2. **Convert** (using a perfect cube measuring 10 cm per side)

PROBLEM 2A:

- a) What is the **length** of the sides: 10 cm
b) What is the **length** of the sides: 100 mm



Conversion Equation: $10 \text{ cm} \times 10 \text{ mm/cm} = 100 \text{ mm (cancel cm)}$

Conversion Question: $10 \text{ cm} = \underline{1} \text{ decimeters (dm)}$

PROBLEM 2B:

- c) What is the **area** of one side of the cube (sq cm): 100 sq cm; What is the area in sq mm 10,000 sq mm (see lesson materials)

Equation: $\underline{10} \times \underline{10} = \underline{100} \text{ sq cm (cm}^2\text{)}$

Equation: $\underline{100} \times \underline{100} = \underline{10,000} \text{ sq mm (mm}^2\text{)}$

THREE DIMENSION (3D) PROBLEMS USING THE SAME CUBE AS ABOVE

PROBLEM 2C: Equation in cm: $\underline{10} \times \underline{10} \times \underline{10} = \underline{1000} \text{ sq cm}^3$

- d) What is the **volume** of the cube in cubic centimeters?

To find cubic centimeters (cm³) multiply l x w x h. **ANSWER:** 1000 sq cm³

PROBLEM 2D: Equation in mm: $\underline{100} \text{ mm} \times \underline{100} \text{ mm} \times \underline{100} \text{ mm} = \underline{1,000,000} \text{ mm}^3$

- e) Find the volume of the cube in cubic millimeters?

Use mm in the equation (not cm). l x w x h **ANSWER:** 1,000,000 mm³