

## **Volume of rectangular prisms (metric units)**

Grade 5 Word Problems Worksheet

1. There are 3 aquariums of different shapes in the ocean park. The rectangular aquarium is 4 m deep, 5 m long and 8 m wide. What is the volume of the rectangular aquarium?

2. The 2 water troughs were shaped like rectangular prisms. Each water trough is 4 m long, 4 m wide and 3.5 m high. What is the volume of one water trough?

3. Ben bought 10 boxes of soap and 3 packs of detergent powder. Each box of soap measures 8 cm long, 7 cm wide and 3 cm high. What is the volume of soap he bought?





4. The rectangular water tank is 5 m long and 10 m wide and can hold 450 cubic meters when full. How deep is the water tank?

5. The jewelry shop owner is delivering boxes of earrings to other branches. The small earring box is 3 cm by 4 cm wide and 5 cm high. How many small boxes would fit in a box 9 cm long, 8 m wide and 10 m high?



## **Answers**

- 1.  $4 \times 5 \times 8 = 160$ The volume of the rectangular aquarium is 160 cubic meters.
- 2.  $4 \times 4 \times 3.5 = 56$ The volume of one water trough is 56 cubic meters.
- 3.  $8 \times 7 \times 3 \times 10 = 1,680$ The volume of the 10 soap boxes is 1,680 cubic centimeters.
- 4.  $450 \div (5 \times 10) = 450 \div 50 = 9$ The water tank is 9 meters deep.
- 5.  $3 \times 4 \times 5 = 60$   $9 \times 8 \times 10 = 720$   $720 \div 60 = 12$ 12 small earring boxes would fit inside the bigger box.