



Compare Volume

TAKS Objective 4
TEKS 5.10B, 5.10C, 5.14A

Solve. Explain how you found each answer.

1. Each layer of a rectangular prism is 4 cubes by 2 cubes. How many cubes make up a 2-layer prism?

3. A cube has a volume of 8 cubic meters. What is the length of each edge?

5. A box has a volume of 24 cubic inches. Two of the faces of the box are squares. Its length is 3 times its width. What are the dimensions of the box?

2. Each layer of a rectangular prism is 4 cubes by 2 cubes. How many cubes make up a 6-layer prism?

4. Lawrence keeps his CD collection in a box that is 30 cm long, 20 cm wide, and 10 cm high. He is building a new box that will be twice as long in every dimension. He says the new box will have twice the volume of the old box. Is he right? Explain why or why not.

6. Sasha is painting letters of the alphabet on cubes. One letter will be placed on each cube face. She knows there are 26 letters in the alphabet. How many cubes will she need? How many faces will be left empty if she paints each letter once?
