

Name _____

Date _____

Grade5/Unit 2 Pre-Test 3-D Geometry and Measurement

Choose the correct answer.

1. What is the volume of a rectangular prism that is 4 units by 3 units by 8 units?

A. 15 cubic units

C. 56 cubic units

B. 30 cubic units

D. 96 cubic units

2. Martin has a box with dimensions $3 \times 3 \times 5$. What are the dimensions of a box that will hold twice as many cubes as Martin's box?

A. $3 \times 6 \times 5$

C. $6 \times 6 \times 10$

B. $3 \times 6 \times 10$

D. $9 \times 3 \times 5$

3. Which is the volume of a rectangular prism with dimensions 3 centimeters by 5 centimeters by 8 centimeters?

A. 16 cubic centimeters

C. 120 cubic centimeters

B. 40 cubic centimeters

D. 240 cubic centimeters

4. Which is the volume of a room that is 8 meters long, 8 meters wide, and 3 meters high?

A. 384 cubic meters

C. 186 cubic meters

B. 192 cubic meters

D. 48 cubic meters

5. a. You have a box that is 3 units by 6 units by 3 units. (A cube is one unit.) The factory wants you to design a box that will hold three times as many cubes. How many cubes will this new box hold? Explain how you know.

b. Write the dimensions of 2 new boxes that hold three times as many cubes as the original box. Explain how you figured out the new dimensions.