

7.G.6: Worksheet

Solutions

1. Abby just sculpted a flat, solid bronze triangle for her art class. (What? There are no wrong answers in art.) If triangle's base is 4 feet long and she used 14 square feet of bronze, how tall is the sculpture? **7 ft**
2. Tim's trunk can hold 42 cubic feet of Jell-O (trust us, he's checked). If the trunk is 6 feet long and 2 feet tall, how wide is it? **3.5 ft**
3. How much wrapping paper would we need to wrap a cube-shaped present that's 2.5 feet tall? **37.5 ft² of wrapping paper.**
4. Priya's favorite kind of dark chocolate comes in a package shaped like a triangular. If the package can hold 144 cm³ of chocolate and the triangular faces have a base of 3 cm and a height of 4 cm, how tall is the entire package? **24 cm**
5. Wesley wants to paint his company's building an awesome shade of candy-apple red. If the building is shaped like a rectangular prism that's 42 feet tall, 18 feet wide, and 30 feet long, what will it cost him to paint the outside walls and roof if paint costs \$10 per square foot? **\$45,720**
6. If a cube has a surface area of 150 in², what is its volume? **125 in³**
7. A right isosceles triangle has an area of 40.5 cm². How tall is it? **9 cm**
8. Arthur's storage bin is 18 ft by 14 ft by 9 ft. He has an enormous collection of shoes, each pair still wrapped in its original box, and he wants to store as many of them as he can. If each shoebox is 2 ft by 0.5 ft by 1.5 ft, how many can he fit in his storage bin? **1512 shoeboxes**
9. Zelda figures out that her backyard is 56 steps long and 43 steps wide. If she wants to build a 15-foot-tall garage that covers the whole yard and if each of her steps is 2.5 feet, what will the volume of her new garage be? **\$225,750 ft³**
10. Michelangelo is getting ready to paint the Sistine Chapel's ceiling, but he wants to make sure he can fit enough buff dudes in his painting. If the Chapel's ceiling is 133 feet long by 46 feet wide and each buff dude takes up 46 square feet of room, how many can Michelangelo fit? **133 buff dudes**