1. A metal toolbox has a length of 11 inches, a width of 5 inches, and a height of 6 inches. What is the volume of the toolbox?

- 2. Evelyn has 3 apples to serve to her friends. If Evelyn serves each friend $\frac{1}{3}$ of a whole apple, how many friends can she serve?
- **3.** Daniel is designing and building a small storage shed. He wants the dimensions of the shed to be one half the dimensions of the shed shown below.



If the dimensions of the shed above are each divided in half, the volume of Daniel's new storage shed will be what fraction of the volume of the original storage shed?

- **4.** Timea ran 3 miles in 19 minutes. At this rate, how many minutes would it take her to run 5 miles?
- **5.** Wilma made a decorative piece shaped like a square pyramid with the dimensions shown.

She wants to double the volume of the piece. Which of the following square pyramid pieces will have a volume that is twice the volume of Wilma's decorative piece?





6. A wallet-sized print is about 5 centimeters wide and 8 centimeters long. Grace wants to use the wallet-sized print to make a print that is similar to the wallet-sized print. If the new print will be 20 centimeters long, how wide will the new print be to the nearest centimeter?

7. Solve the equation b - 5 = -8. What is the value of b?

8. What is the area of the circle shown below?

12. Andrea made a tiered cake for a wedding. She wants to cover the outside of each layer marked A, B, and C with white icing.

3 in. A Radius = 2 3 in. B Radius = 4 4 in. C Radius = 6

What is the circumference of cake A?

What is the combined volume of all 3 cakes?

9. Compare the surface area of the figures. Justify your answer.

- **10.** The circumference of a circle is 37.68 meters. What is the radius of the circle?
- **11.** Sophie drew a circle on a map with a radius of 2 inches. She plans to visit the cities within the circle. What is the area of the map that she wants to visit?

13. A ceramic dish company makes small square dishes with lids. The dishes are shipped in rectangular boxes that are 20 centimeters by 20 centimeters by 16 centimeters. The extra space in the box is filled with packing material to protect the dish.



Part A How much space does the dish take up?

- Part B How much packing material is needed?
- *Part C* How much material is needed to make the box?



