$\qquad$
Directions: Find the volume of each solid. Round to the nearest tenth if necessary. Remember, you MUST also state the formula, show the substitution, and Show all work. !
1.

2.

3.

4. ${ }^{24 \mathrm{~cm}}$

62 cm
5. What is the surface area of a cone with a radius of 9 meters and a slant height of 11 meters? Round to the nearest tenth.
6. A cylindrical can has a height of 13 centimeters, and its base has a radius of 12 centimeters. What is the volume of the can to the nearest tenth?
7. The storage container at the right is to be painted. What is the area of the surface to be painted to the nearest whole number? Assume that the bottom does not need painting.

8. The popcorn containers at a movie theater are in the shape of cones. Suppose a popcorn container has a radius of 9 inches and a slant height of 15 inches. What is the lateral area of the popcorn container rounded to the nearest inch?
9. The volume of a triangular prism is 84 cubic centimeters. What is the volume of a similar prism that is twice as large as the first prism?
10. The surface area of a cone is 108 square inches. What is the surface area of a similar prism that is three times as large?
11. Find the surface area of the composite shape. Round to the nearest tenth.

12. Find the volume of the composite shape. Round to the nearest tenth.


