

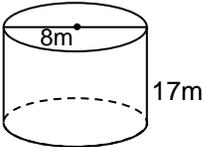
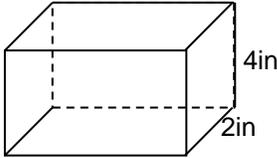
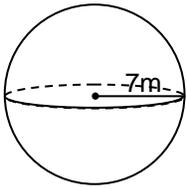
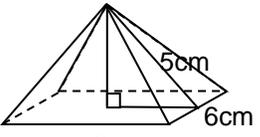
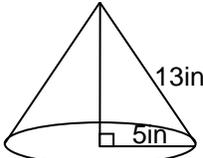
**GEOMETRY**  
**SURFACE AREA**

NAME \_\_\_\_\_  
DATE \_\_\_\_\_ PER. \_\_\_\_\_

Using a copy of the **Geometry Reference Sheet**, write the **formula** that you would use to find the **surface area** of the indicated solids and **identify** each of the **variables**.

Solid	Surface Area Formula	Variables
1. Rectangular Prism	_____	_____
2. Right Circular Cylinder	_____	_____
3. Right Square Pyramid	_____	_____
4. Right Circular Cone	_____	_____
5. Sphere	_____	_____

Use the **formulas** listed above to find the **surface area** of the indicated solids. Make sure you **a) identify the value of each variable** and **b) use the information in a) to find the surface area**. (In the third column, you must write the formula, substitute each variable, and simplify to get the answer.)

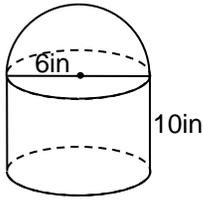
Question	Indicate the value of each variable.	Find the surface area (Leave answer in terms of $\pi$ )
6.	_____	Formula _____
	_____	Substitute _____
	_____	Simplify _____
		Answer _____
7.	_____	Formula _____
	_____	Substitute _____
	_____	Simplify _____
		Answer _____
8.	_____	Formula _____
	_____	Substitute _____
		Simplify _____
		Answer _____
9.	_____	Formula _____
	_____	Substitute _____
	_____	Simplify _____
		Answer _____
10.	_____	Formula _____
	_____	Substitute _____
	_____	Simplify _____
		Answer _____

**Question**

**Indicate the value of each variable.**

**Find the surface area**  
Leave answer in terms of  $\pi$ .

11.



a) Identify the two solids that make up the solid.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

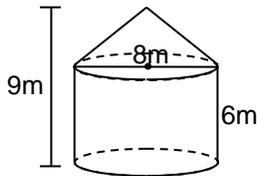
Formula \_\_\_\_\_

Substitute \_\_\_\_\_

Simplify \_\_\_\_\_

Answer \_\_\_\_\_

12.



a) Identify the two solids that make up the solid.

\_\_\_\_\_

Hint: Use the Pythagorean Theorem to find the missing value.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

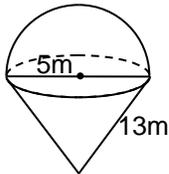
Formula \_\_\_\_\_

Substitute \_\_\_\_\_

Simplify \_\_\_\_\_

Answer \_\_\_\_\_

13.



a) Identify the two solids that make up the solid.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Formula \_\_\_\_\_

Substitute \_\_\_\_\_

Simplify \_\_\_\_\_

Answer \_\_\_\_\_

Find the indicated surface area in each problem.

14. Mrs. C wants to estimate how much paint she will need to paint the walls of her new classroom. The room is rectangular, and its dimensions are 20 feet by 24 feet by 8 feet. It has one door that measures 3 feet by 6.75 feet and two boards, each measuring 4 feet by 7 feet. The door and boards will not be painted.

a) How many square feet are to be painted? **Show all work!!** ☺

b) If a gallon of paint covers 400 square feet, how many gallons of paint does Mrs. C need to buy? **Show all work!!**

15. A small tent is being made in the shape of a pyramid with a square base. A side of the base will be 8 feet. The slant height of the tent will be 6 feet. What will be the total surface area of the tent, including the floor? (Hint: Draw a diagram illustrating the tent.) **Show all work!!** ☺