Date:

**Surface Area Worksheet** 

## If a rectangular box is opened: 1,2 = base or ends 3,5 = sides 4 = bottom or floor 6 = top or ceiling

Shape	Lateral Surface Area (LSA)	Total Surface Area (TSA)
Cuboid	2height(length + base)	2(lb + bh + lh)=2Bh + (perimeter)(height)
Cube	4a <sup>2</sup>	6a <sup>2</sup>
Prism	Base perimeter × Height	LSA + 2 (area of one end)
Cylinder	2πrh	2πr(r + h)

## 1. Define the following terms:

- a. lateral surface area
- b. total surface area
- c. two-dimensional (2D)
- d. three-dimensional (3D)





Name:

- 2. Draw the geometric shapes for the following objects:
  - a. cuboid
  - b. cube
  - c. prism
  - d. cylinder

## Show the equation and solving of the following problems:

- 3. The dimensions of a right rectangular prism are 4 inches by 5 inches by 6 inches. What is the surface area, in square inches, of the prism? (Convert to centimeters).
- 4. A cube has a surface area of 54 square meters. What is the volume, in cubic meters, of the cube? (Convert to centimeters).
- 5. A cubic prism has the dimensions of 4 inches by 4 inches and a height of 10 inches. What is the surface area? (Convert to centimeters).
- 6. Find the surface area of a right triangular prism with sides of 3 inches x 4 inches x 5 inches and a height of 12 inches. (Convert to centimeters).
- 7. What is the surface area of a cylinder with a radius of 3 inches and a height of 6 inches? (Convert to centimeters).

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