 **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  | 4a2  | 6a2  |
| Prism  | Base perimeter × Height  | LSA + 2 (area of one end)  |
| Cylinder  | 2πrh  | 2πr(r + h)  |

1. **Define the following terms:**
	1. lateral surface area
	2. total surface area
	3. two-dimensional (2D)
	4. three-dimensional (3D)
2. **Draw the geometric shapes for the following objects:**
3. cuboid
4. cube
5. prism
6. cylinder

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

1. 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).
2. A cube has a surface area of 54 square meters. What is the volume, in cubic meters, of the cube? (Convert to centimeters).
3. 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).
4. 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).
5. What is the surface area of a cylinder with a radius of 3 inches and a height of 6 inches? (Convert to centimeters).