## Surface Area Worksheet



| If a rectangular box <br> is opened: <br> $1,2=$ base or ends <br> $3,5=$ sides <br> $4=$ bottom or floor <br> $6=$ top or ceiling |
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| Shape | Lateral Surface Area (LSA) | Total Surface Area (TSA) |
| :--- | :--- | :--- |
| Cuboid | 2 height(length + base) | $2(\mathrm{lb}+\mathrm{bh}+\mathrm{lh})=2 \mathrm{Bh}+$ (perimeter)(height) |
| Cube | $4 \mathrm{a}^{2}$ | $6 \mathrm{a}^{2}$ |
| Prism | Base perimeter $\times$ Height | LSA +2 (area of one end) |
| Cylinder | $2 \pi r h$ | $2 \pi r(r+h)$ |

1. Define the following terms:
a. lateral surface area
b. total surface area
c. two-dimensional (2D)
d. three-dimensional (3D)

## 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 $\times 4$ inches $\times 5$ 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).
