

Handout 2: Scratching The Surface Area

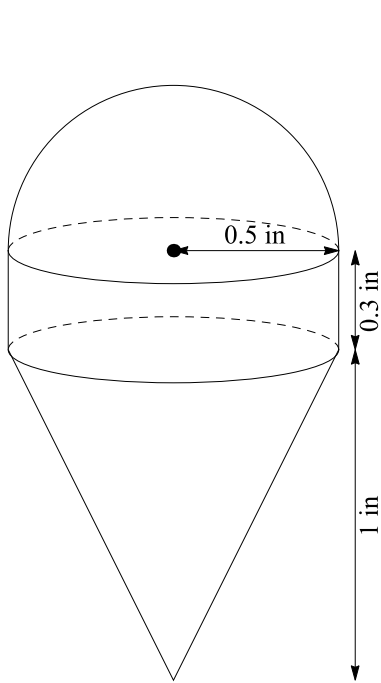


Figure 1

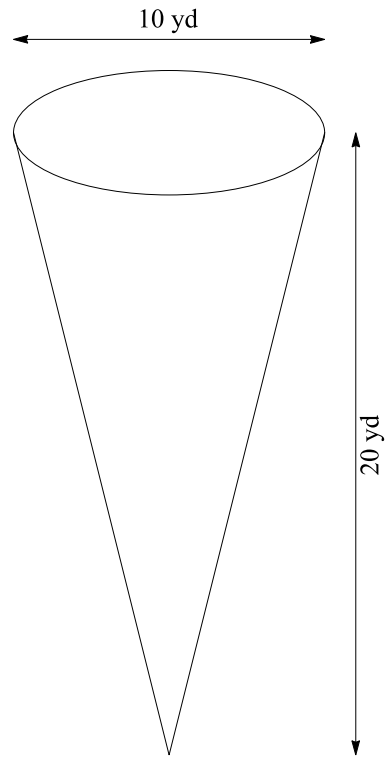


Figure 2

1. Find the surface area of the solid in Figure 1.
2. Find the surface area of the solid in Figure 2.
3. Find the lateral and surface areas of a prism whose base is a right triangle with legs of length 8 cm and 10 cm, and height is 18 cm
4. Find the lateral and surface areas of a cylinder with a diameter of 12 mm and a diagonal of 24 mm.

5. Find the lateral and surface areas of a square pyramid with a side of 15 in and a slant height of 21 in.
6. Find the lateral and surface areas of a cone with a height of 8 ft and a radius of 5.5 ft.
7. Find the surface area of a sphere with a diameter of 7 mm.
8. Your little brother wants to make a mask out of a cardboard cereal box. The box has measurements of 15 inches, 5 inches, and 3 inches. If you estimate your little brother's head as a sphere with circumference 18 inches, how many masks can the cereal box make?
9. If you get paid \$100 to paint the outside of a $30\text{ ft} \times 40\text{ ft} \times 25\text{ ft}$ house, how much money per cubic foot of paint are you earning?
10. Your dad has a silver paperweight in the shape of a small square pyramid which you decide to wrap with foil. How much foil will you need if the base of the square pyramid is 2 inches long and the height of the pyramid is 2 inches?