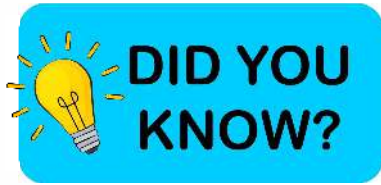# Surface Area-Cylinder

Concept
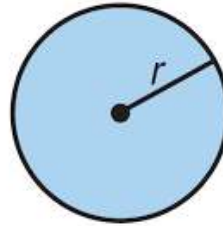
Before you start you must know how to find circumference and area of a circle.
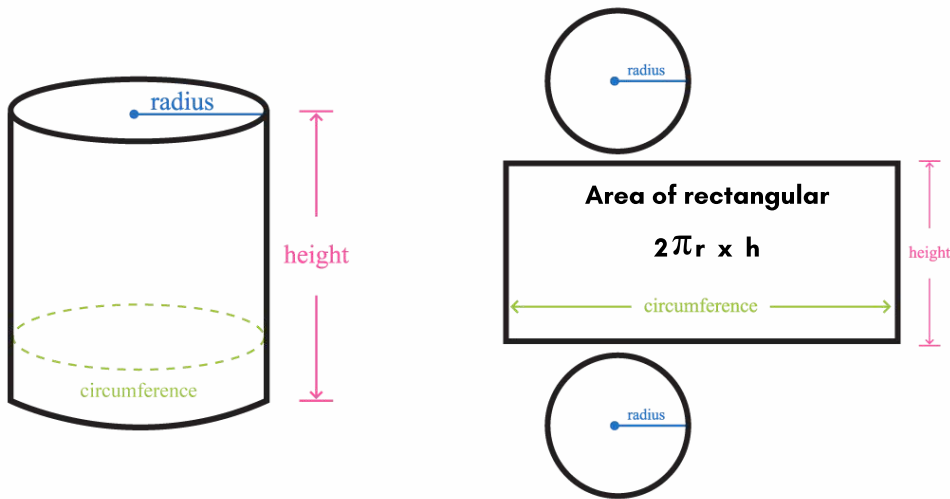
DID YOU KNOW?

radius r

$$C = 2\pi r$$

$$A = \pi r^2$$

The surface area of a cylinder is the total area of its surface. A cylinder has two circles and a "Wrapper" going around the out side. see below diagram

radius

height

circumference

radius

Area of rectangular

$2\pi r \times h$

circumference

height

radius

$$Surface\ Area = 2\pi r^2 + 2\pi rh$$

$$SA = 2\pi\ (radius)^2 + (circumference)\ (height)$$

Assignment

1. The diameter of the base of a cylinder is 12 cm and the height is 8 cm. Find the surface area of the solid cylinder.
2. The cost of painting a cylindrical container is $0.04 per cm2. Find the cost of painting 20 containers of radius, 50 cm, and height, 80 cm.
3. Find the surface area of each cylinder given below.

a)

h = 2 cm

r = 3 cm

b)

h = 2 cm

r = 1 cm

c)

10 in

4 in