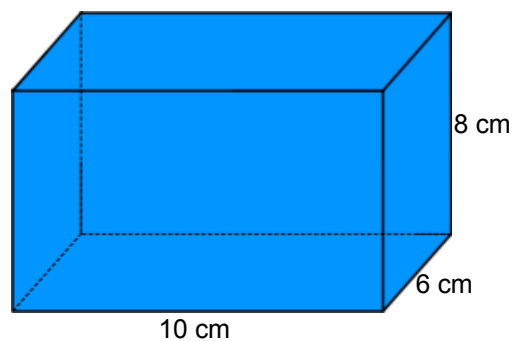


14.4 Surface Area

How do we find the surface area of a solid figure?



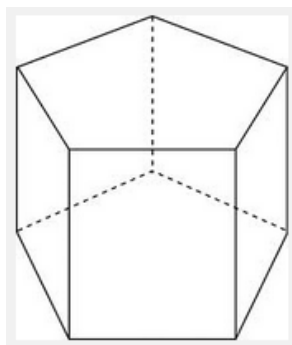
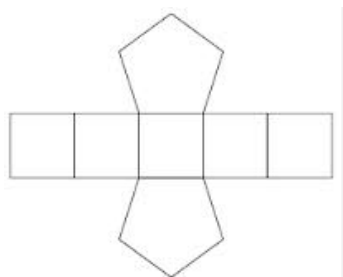
What is a net?

Let A = area of base

P = perimeter of base

h = height of solid

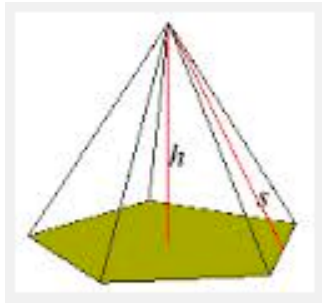
Right Prism



$$SA = 2A + Ph$$

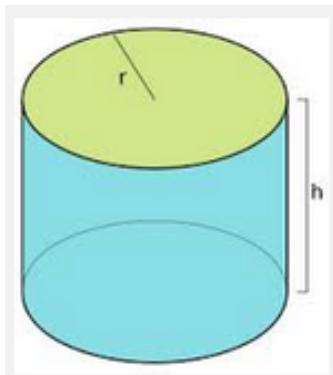
Let s = slant height

Right Pyramid

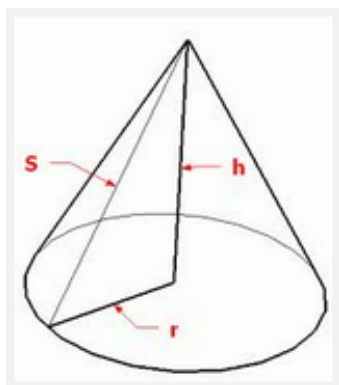


$$SA = A + 0.5Ps$$

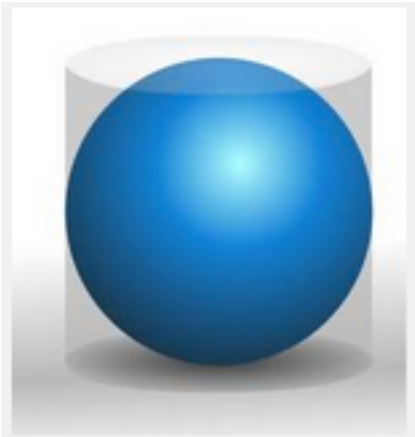
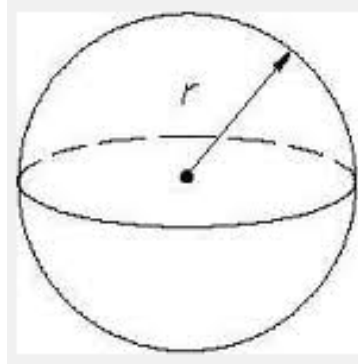
Right Circular Cylinder



Right Circular Cone



Sphere



The Greek mathematician Archimedes discovered that the surface area of a sphere is the same as the lateral surface area of a cylinder having the same radius as the sphere and a height the length of the diameter of the sphere.

Another way to look at it is the ratio of surface area of the sphere to the entire surface area of the smallest cylinder containing the sphere is $2/3$.