# 8th Grade
# Lesson 73

- I can find the volume and surface area of right circular cylinders.

## Surface Area and Volume Review

$p$ = perimeter of the base

$h$ = height of the solid (distance between the two bases)

$B$ = area of the base

## Formulas

L.A. = $ph$

S.A. = L.A. + $2B$

Volume = $Bh$

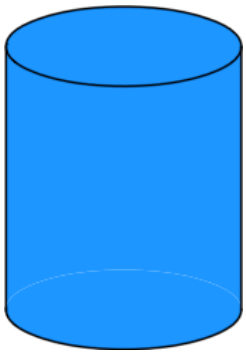
## Right Circular Cylinder

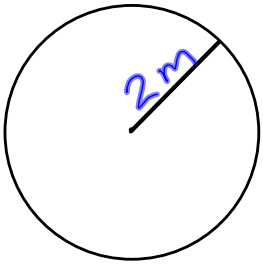
$V = Bh$

$= (3.14)(2^2)(20)$

$(12.56)(20)$

$V = 251.2\ m^3$




$LA = (2 \cdot 3.14)(2)(20)$

$= (12.56)(20)$

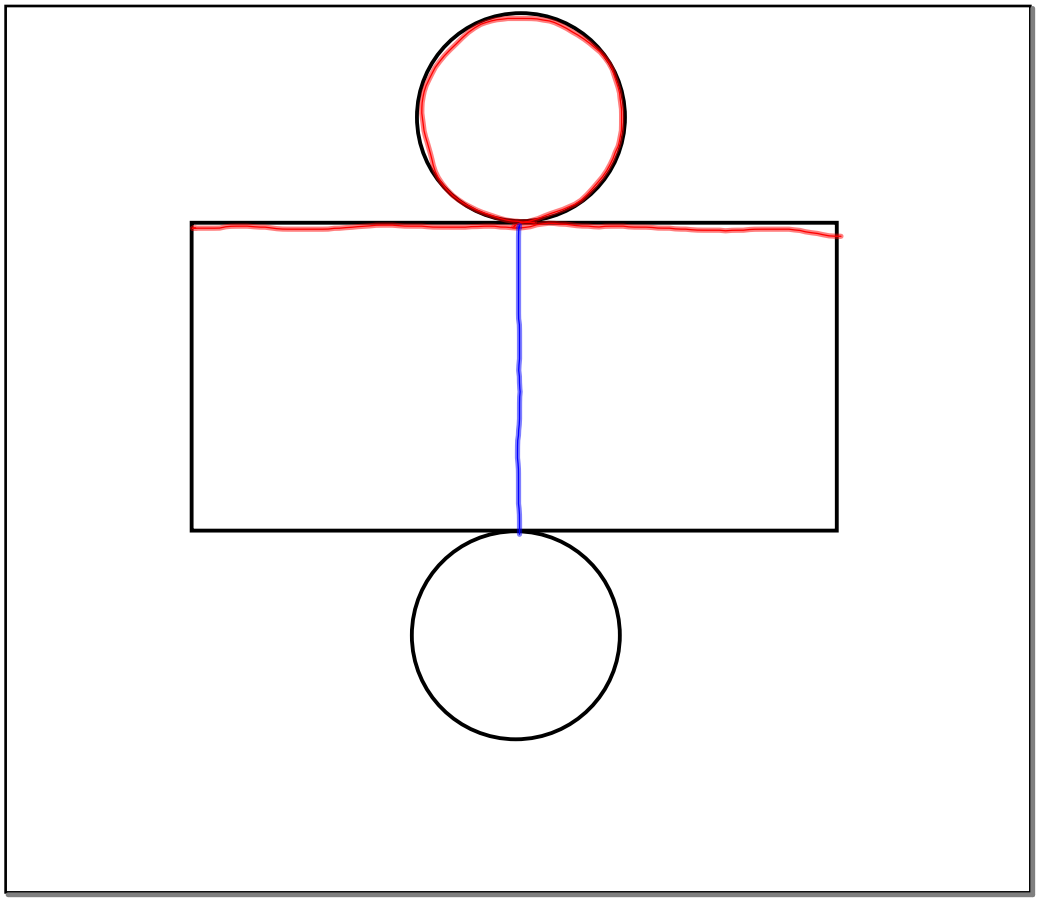
$= 251.2\ m^2$

$SA = LA + 2B$

$SA = 251.2 + 2(12.56)$

$= 251.2 + 25.12$

$= 276.32\ m^2$



Find the volume and surface area of a right circular cylinder that has a height of 30 feet and whose base has a radius of 10 feet.

$V = (10^2 \cdot 3.14)(30)$

$(314)(30)$

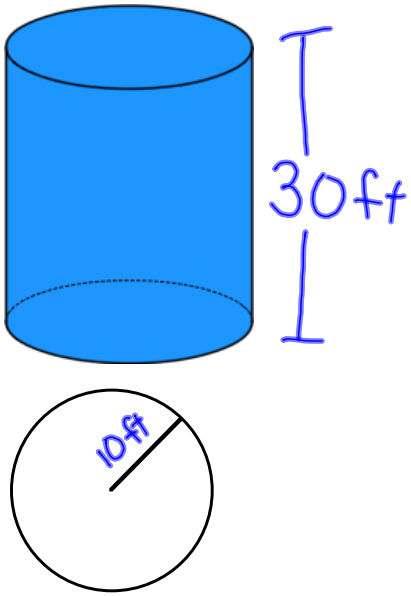
$V = 9420\ ft^3$

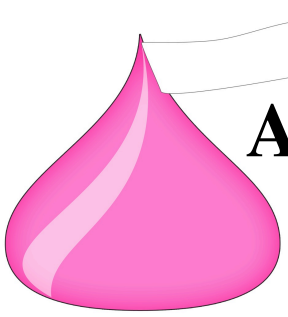
$SA = (2)(314) + (2)(10)(3.14)(30)$

$= 628 + (62.8)(30)$

$= 628 + 1884$

$SA = 2512\ ft^2$



# Assignment:

Problem Set 73 #1-9, 13-19