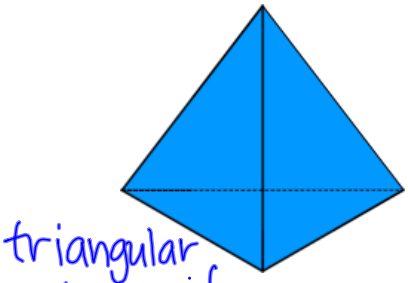
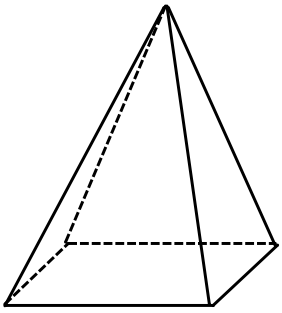
8th Grade
Lesson 120

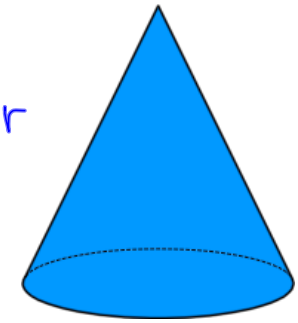
- I can find the volume & surface area of pyramids & cones.
- I can find the volume of spheres.



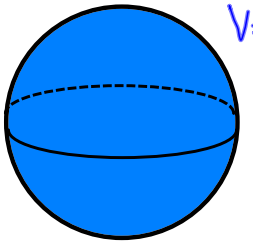
triangular pyramid



rectangular pyramid

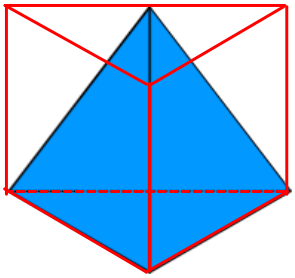


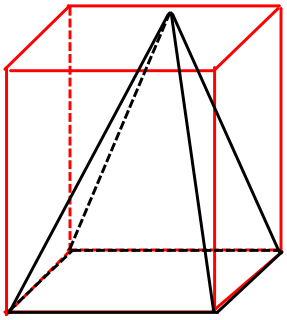
Circular Cone

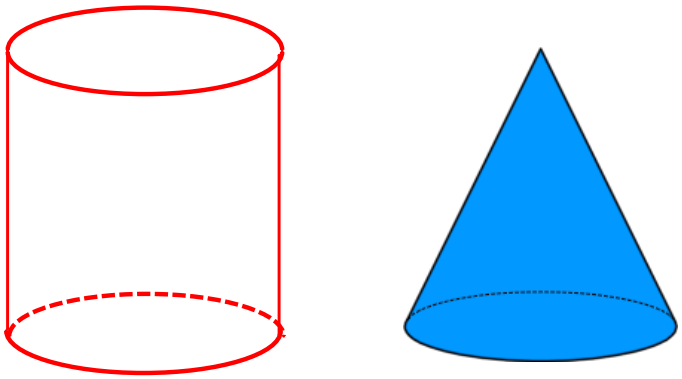


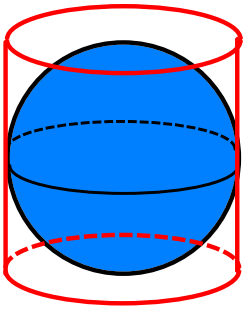
$V = \frac{4}{3}r^3\pi$

Sphere

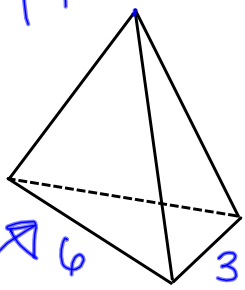








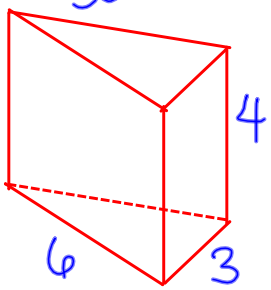
pyramid



$V = \frac{1}{3} \cdot 36m^3$

$= 12m^3$

right solid

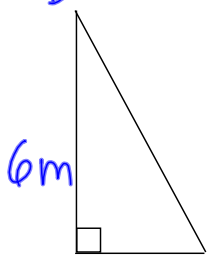


$V = Bh$

$V = (9m^2)(4m)$

$= 36m^3$

base



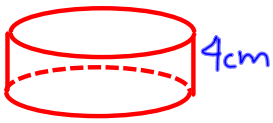
$B = \frac{3 \cdot 6}{2} = 9m^2$

circular cone

$V = \frac{1}{3} \cdot 1256$

$= 418\frac{2}{3} cm^3$

cylinder

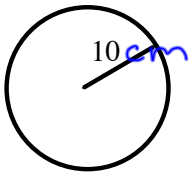


$V = Bh$

$V = 314 \cdot 4$

$= 1256 cm^3$

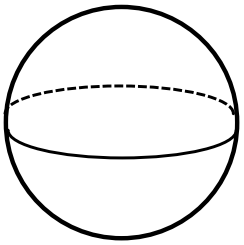
base



$B = r^2 \cdot \pi = 10^2 \cdot 3.14$

$= 314 cm^2$

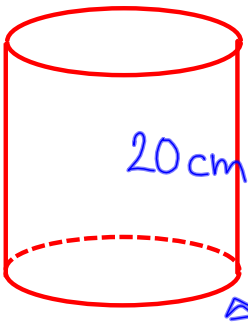
sphere



$V = \frac{2}{3} \cdot 6280$

$= 4186\frac{2}{3}\,cm^3$

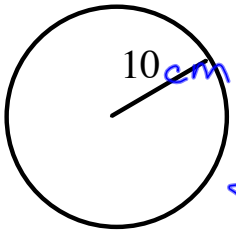
cylinder



$V = 314 \cdot 20$

$= 6280\,cm^3$

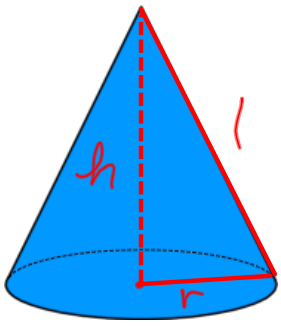
Base

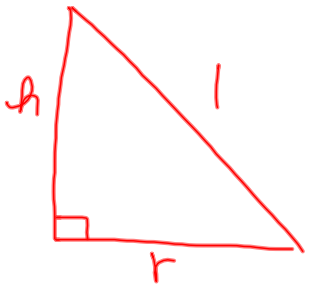


$B = 10^2 \cdot 3.14$

$= 314\,cm^2$

$SA = B + LA$



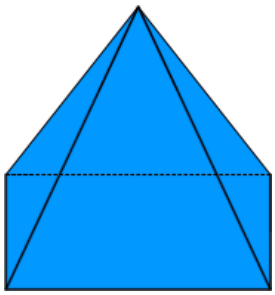


l = slant height

LA of circular cone $= r \cdot l \cdot \pi$

$SA = B + LA = r^2 \cdot \pi + r \cdot l \cdot \pi$

$SA = B + LA$

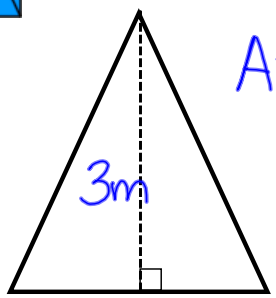


4m

$B = 16m^2$

4m

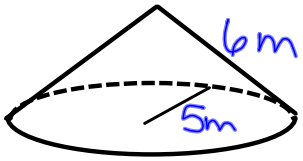
$SA = 16 + 24$
$= 40m^2$



$A = \frac{4 \cdot 3}{2} = 6m^2$

4m

$LA = 6 \cdot 4 = 24m^2$



$B = r^2 \cdot \pi = 5^2 \cdot \pi$
$= 25\pi\ m^2$

$LA = r \cdot l \cdot \pi = 5 \cdot 6 \cdot \pi$
$= 30\pi\ m^2$

$SA = 25\pi + 30\pi$
$= 55\pi\ m^2 = 172.7m^2$

Assignment

~~Pg. 381 Practice A-D and PS 120 #6-10~~

Pg 381 A-C, 8, 10

Pg 381 D, 6, 7, 9