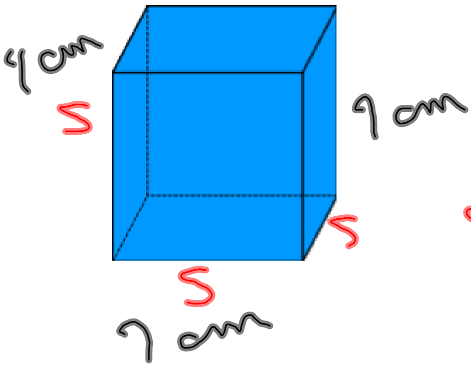
Nov 25-10:24 AM



Cube

Volume = side times side times side
Surface area = 6 times the area of one face

$V = s^3$

$SA = 6 \cdot s^2$ — area of a square

$V = s^3$

$V = (7\,cm)^3$

$V = (7\,cm)(7\,cm)(7\,cm)$

$V = 343\,cm^3$

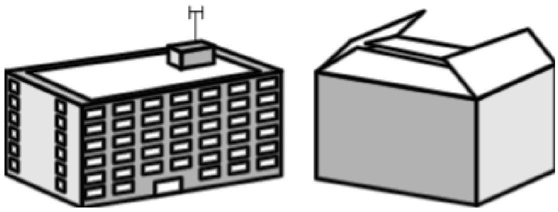
$SA = 6 \cdot s^2$

$SA = 6 \cdot (7\,cm)^2$

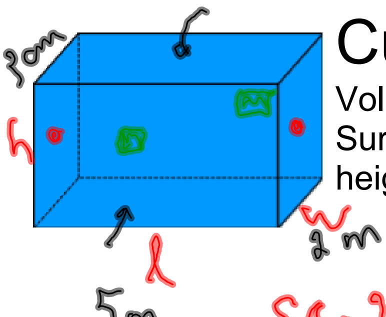
$SA = 6 \cdot (7\,cm)(7\,cm)$

$SA = 294\,cm^2$

Nov 25-10:13 AM



Nov 25-10:27 AM



Cuboid

Volume = length times width times height
Surface Area=2(length times width + length times height + width times height)

$V = l \cdot w \cdot h$

$SA = 2(l \cdot w + l \cdot h + w h)$

rectangle formula for area

$V = l \cdot w \cdot h$

$V = (5m)(2m)(3m)$

$V = 30\ m^3$

$SA = 2(lw + lh + wh)$

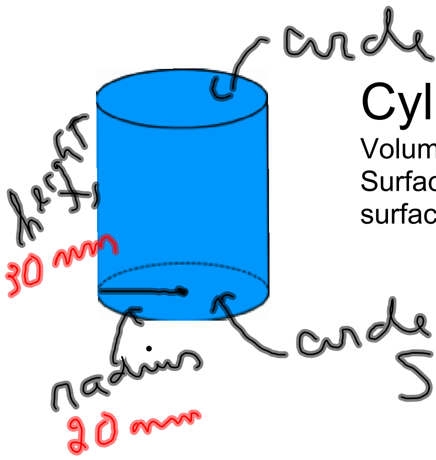
$SA = 2[(5m)(2m) + (5m)(3m) + (2m)(3m)]$

$SA = 2[10m^2 + 15m^2 + 6m^2]$

$SA = 2[31m^2] = 62m^2$

Nov 25-10:13 AM

Nov 25-10:28 AM



Cylinder

Volume = area of a circle times the height
Surface Area = area of the circle + the area of the curved surface (circumference of the circle times height)

$$V = (\pi r^2) h = \pi r^2 h$$

$$SA = 2(\pi r^2) + 2\pi r \cdot h$$

$$V = \pi r^2 h$$

$$V = \pi (20\,mm)^2 (30\,mm)$$

$$V = \pi (20\,mm)(20\,mm)(30\,mm)$$

$$V = 12000\pi\,mm^3$$

$$SA = 2\pi r^2 + 2\pi r h$$

$$SA = 2\pi (20\,mm)^2 + 2\pi (20\,mm)(30\,mm)$$

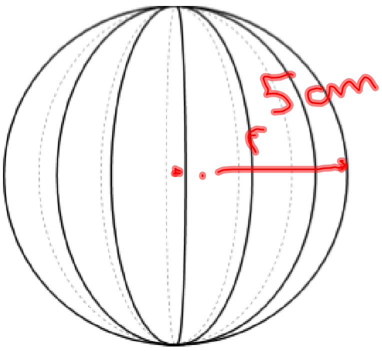
$$SA = 2\pi (400\,mm^2) + 2\pi (600\,mm^2)$$

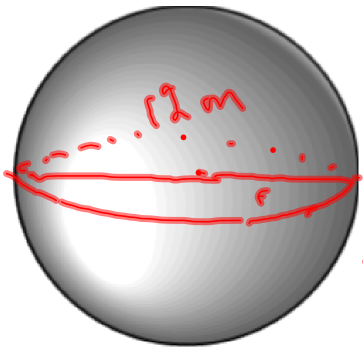
$$SA = 800\pi\,mm^2 + 1200\pi\,mm^2$$

$$SA = 2000\pi\,mm^2$$

Nov 25-10:13 AM

Nov 25-10:28 AM





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

$SA = 4\pi r^2$

$V = \frac{4}{3}\pi (5\ cm)^3$

Sphere

Volume = 4/3 times ∏ times the radius cubed (radius x radius x radius)
Surface Area = 4 times ∏ times radius squared (radius times radius)

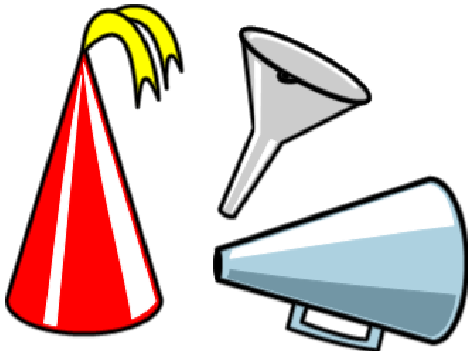
$V = \frac{4}{3}\pi (5\ cm)(5\ cm)(5\ cm)$

$d = 12\ m \quad r = 6\ m$

$V = \frac{500}{3}\pi\ cm^3$

$SA = 4\pi r^2 = 4\pi (6\ m)^2 = 4\pi (36\ m^2) = 144\pi\ m^2$

Nov 25-10:18 AM



Nov 25-10:28 AM

Cone

Volume = 1/3∏ times the radius squared times the height
Surface Area = area of the circle + the area of the curved surface (∏ times the radius times the slant height)

circle

$A = \pi r^2$

$C = 2\pi r$

$V = \frac{1}{3}\pi r^2 \cdot h$

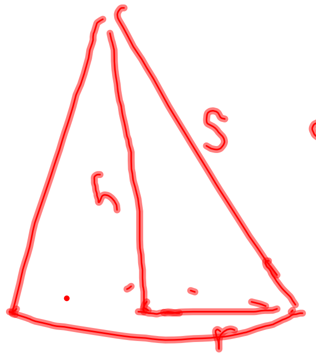
$V = \frac{1}{3}\pi(4\,cm)^2(6\,cm)$

$V = \frac{1}{3}\pi(4\,cm)(4\,cm)(6\,cm)$

$V = \frac{1}{3}\pi(96\,cm^3)$

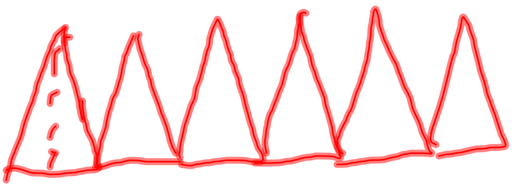
$V = \frac{96}{3}\pi\,cm^3$

Nov 25-10:13 AM



Slant height

$SA = \pi r^2$



$A = \frac{1}{2}bh \quad SA = \pi r^2 + \pi r s$

Nov 26-2:34 PM

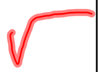
$c^2 = a^2 + b^2$

hypotenuse = $(\text{altitude height})^2 + (\text{radius})^2$
Slant height

$c^2 = 7^2 + 5^2$

$c^2 = 49 + 25$

$c^2 = 74$

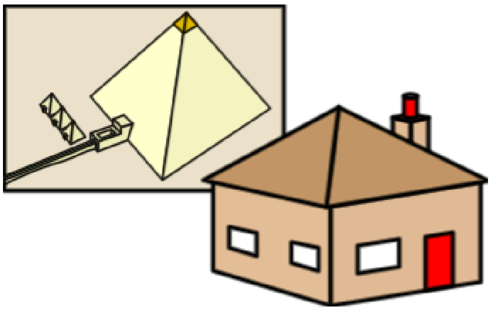


$c = 8.6\text{ cm}$

$SA = \pi(5\text{cm})^2 + \pi(5\text{cm})(8.6\text{cm})$

$SA = \pi(5\text{cm})(5\text{cm}) + \pi(5\text{cm})(8.6\text{cm})$

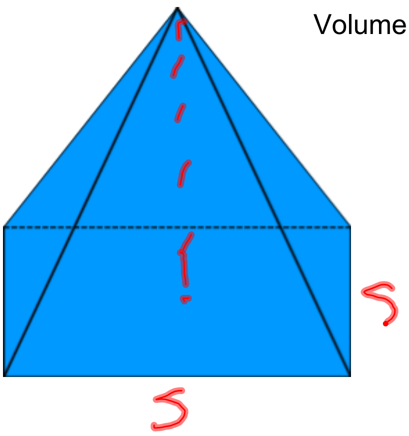
Nov 26-2:40 PM



Nov 25-10:28 AM

Pyramid with a square base

Volume = 1/3 times area of the base times the height



$V = \frac{1}{3} s^2 \cdot h$

$V = \frac{1}{3} \cdot l \cdot w \cdot h$

Nov 25-10:19 AM