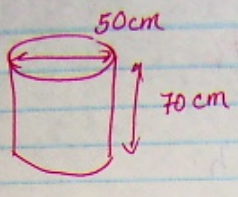
Pg. 253.
#3.

(a)



$V = (\pi r^2) \times H$

$V = 3.14(25)^2 \times 70$

$V = 137375\ cm^3$

(b) $V = L \times W \times H$

$= 46 \times 80 \times 15$

$= 55200\ cm^3$.

$137375 \div 55,200 = 2.488677536$

(c) 2.488677536×20

$= 50\ kg$.

(d) $V = \pi r^2 \times H$

$= 3.14(12.5)^2 \times 35$

$= 17171.875\ cm^3$.

12. Pg. 270 #6.

Cylinder SA = ~~πr^2~~ + $2\pi rh$.

$\pi r^2 + 2\pi rh$

$3.14(900)^2 + 2(3.14)(900)(1570)$

$3.14(810000) + 8873640$

$2543400 + 8873640$

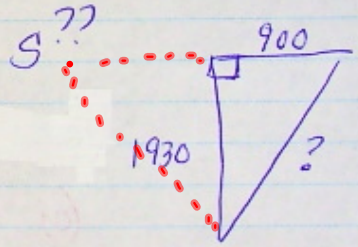
$= 11{,}417{,}040\ mm^2$

Cone SA = ~~πr^2~~ + πrs.

$= \pi rs$.

$= 3.14(900)(2129.53)$

$= 6018051.78\ mm^2$.



Total

$11{,}417{,}040$

$6{,}018{,}051.78$

$= 17435091.78\ mm^2$.

$a^2 + b^2 = h^2$

$1930^2 + 900^2 = h^2$

$3724900 + 810000 = h^2$

$4534900 = h^2$

$h = 2129.53\ mm^2$

#4

$(l \times w) \times H$

$25 \times 25 \times 40$

$= 25000\ cm^3$

25000

$+ 5208.33$

$- 140.625$

$= 30067.705\ cm^3$

$V = \frac{(l \times w) \times H}{3}$

$= \frac{25 \times 25 \times 25}{3}$

$= \frac{15625}{3}$

$= 5208.33$

$V = \frac{(l \times w) \times H}{3}$

$= \frac{7.5 \times 7.5 \times 7.5}{3}$

$= \frac{421.875}{3}$

$= 140.625\ cm^2$