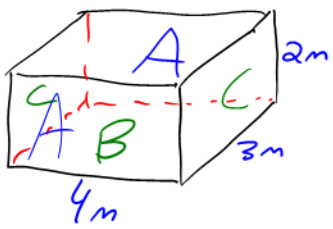
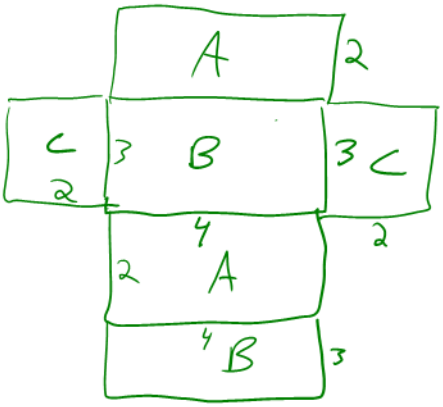
9.2 Surface Area, Nets and Volume of Prisms.

11.





$SA = 2A + 2B + 2C$

$SA = 2(2)(4) + 2(4)(3) + 2(3)(2)$

$SA = 16 + 24 + 12$

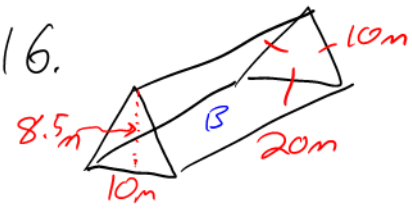
$SA = 52m^2$

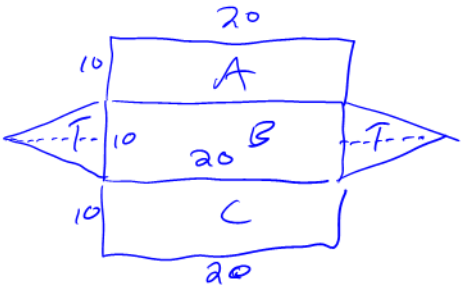
$V = lwh$

$V = (4)(3)(2)$

$V = 24m^3$

16.





$S.A. = A + B + C + \boxed{2T} = 2\left(\frac{bh}{2}\right)$

$= (10)(20) + (10)(20) + (10)(20) + 2\left(\frac{(10)(8.5)}{2}\right)$

$= 600 + 85$

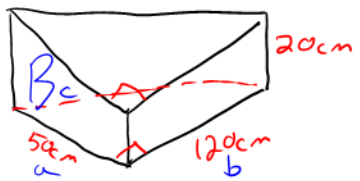
$= 685m^2$

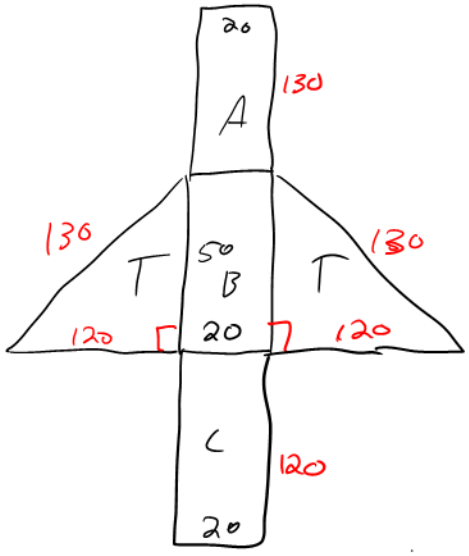
$V = \frac{bhl}{2}$

$V = \frac{(10)(8.5)(20)}{2}$

$V = 850m^3$

17.





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

$50^2 + 120^2 = c^2$

$2500 + 14400 = c^2$

$16900 = c^2$

$130 = c$

$SA = A + B + C + 2T$

$SA = (20)(130) + (50)(20) + (120)(20) + 2\left(\frac{(120)(50)}{2}\right)$

$SA = 2600 + 1000 + 2400 + 6000$

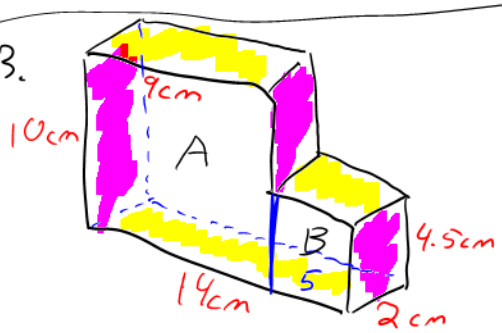
$SA = 12{,}000\ cm^2$

$V = \frac{bh\ell}{2}$

$V = \frac{(120)(50)(20)}{2}$

$V = 60{,}000\ cm^3$

23.



$SA = 2(9)(10) + 2(4.5)(5) + 2(14)(2) + 2(10)(2)$

$SA = 180 + 45 + 56 + 40$

$SA = 321\ cm^2$

$V_A = \ell wh$

$= (9)(10)(2)$

$= 180\ cm^3$

$V_B = \ell wh$

$= (4.5)(2)(5)$

$= 45\ cm^3$

$\therefore V = 180 + 45$

$V = 225\ cm^3$

Homework: pg 470 # 9, 12, 13, 15, 20, 21, 24