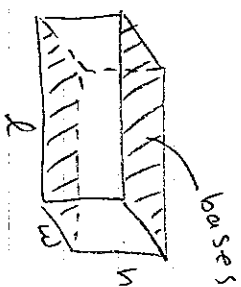


12.1

L	①	②	③	④	⑤	⑥
W	4	50	6	9	9	5x
H	2	30	3	8	6	4x
L/A	40	15	54	5	2	3x
TA	88	2400	90	170	600	$18x \cdot 3x = 54x^2$
V	48	5400	54	314	168	$54x^2 + 2 \cdot (5x \cdot 4x) = 94x^2$
		22500		360	108	$(60x)^3$

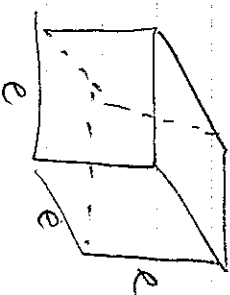


$$(12+8)/2$$

$$24/2 = 12$$

$$60 = (18+24)/2$$

e	⑦	⑧	⑨	⑩	⑪	⑫
TA	3	2	10	4	4	50
V	27	$6e^3$	1000	64	150	$24yx^2$
		e^3			125	$8x^3$



$$⑬ 12.3 + 2.9$$

$$⑭ (4e)e + 2e^2 =$$

$$⑮ (40)(10) + 2(100) =$$

$$⑯ (10)(4) + 2(4^2)$$

$$⑰ 150 = 6e^2$$

$$85 = e^2$$

$$⑲ (8x)(2x) + 2 \cdot (8x)^2$$

$$16x^2 + 8x^2 =$$

$$⑳ P = 30 \cdot 13 = 390$$

$$㉑ 120 = (4+5+6)h$$

$$8 = h$$

⑳

$$A = (4x)x + 2(x^2)$$

$$A = 4x^2 + 2x^2$$

$$V = x^3$$

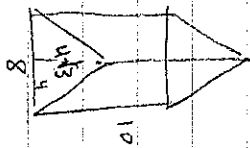
$$A = (8x)(2x) + 2 \cdot (2x)^2$$

$$A = 16x^2 + 8x^2$$

$$V = 8x^3$$

Area is mult. by $\frac{4}{8}$
Vol. is mult. by $\frac{1}{8}$

(17)

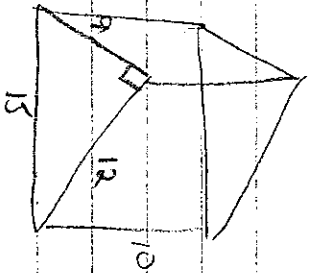


$$LA = 8 \cdot 3 \cdot 10 = 240$$

$$TA = 240 + 32\sqrt{3}$$

$$V = \frac{1}{2}(32\sqrt{3}) \cdot 10 = 160\sqrt{3}$$

(18)



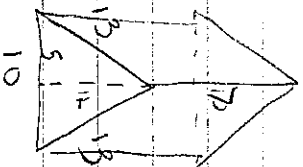
$$LA = (15 + 12 + 9)(10) = 360$$

$$TA = 360 + 2 \cdot \left(\frac{1}{2} \cdot 9 \cdot 12\right) = 468$$

$$V = 54 \cdot 10 = 540$$

$$81 + 144 = 225$$

(19)



$$LA = (30)(7) = 210$$

$$B = \frac{1}{2}(12)(10) = 60$$

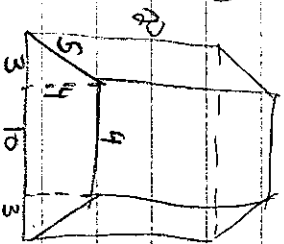
$$TA = 270$$

$$V = 60 \cdot 7 = 420$$

$$5^2 + b^2 = 13^2$$

$$b = 12$$

(20)



$$LA = 24(20) = 480$$

$$B = \frac{1}{2}(4+10)(4) = 28$$

$$TA = 536$$

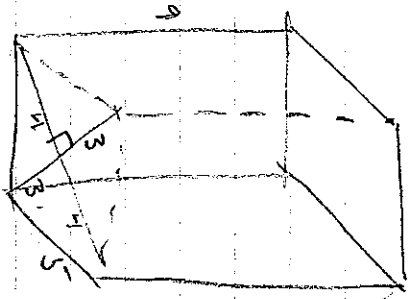
$$V = 28 \cdot 20 = 560$$

$$3^2 + b^2 = 5^2$$

$$b = 4$$

(21)

21



$$4^2 + 3^2 = 5^2$$

$$5 = 5$$

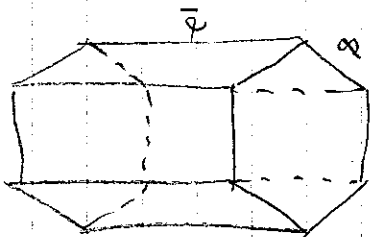
$$LA = 20(9) = 180$$

$$B = \frac{1}{2}(8)(4) = 24$$

$$TA = 180 + 48 = 228$$

$$V = 24 \cdot 9 = 216$$

22

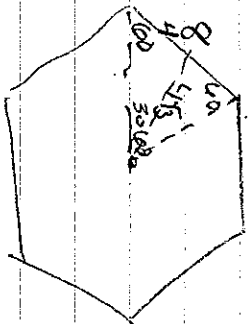


$$LA = (8 \cdot 6)(12) = 576$$

$$B = \frac{1}{2}(4\sqrt{3})(48) = 96\sqrt{3}$$

$$TA = 576 + 192\sqrt{3}$$

$$V = (96\sqrt{3})(12) = 1152\sqrt{3}$$



$$a = 4\sqrt{3}$$

$$(23) (30)(45)(0.5) = 675 \text{ cm}^3$$

$$(24) 30 \times 5 \times 10^3 = 4.5 \text{ m}^3 \quad 3 \text{ cm} = 0.3 \text{ m}$$
$$\begin{array}{r} \times 175 \\ \hline \cancel{787.50} \end{array}$$

$$(25) 20 \times 10 \times 5 = 1000 \text{ cm}^3 \quad 25 \times 15 \times 4 = 1500$$

$$\frac{1000 \text{ cm}^3}{1.2 \text{ kg}} = \frac{1500 \text{ cm}^3}{x}$$

$$1.8 \text{ kg} = x$$

$$(31) \quad L = 2uw \quad 1w^2 = 2uw(u)(3uw)$$

$$w = u$$

$$1w^2 = 6uw^3$$

$$h = \cancel{3} \cdot 3uw$$

$$27 = u^3$$

$$3 = u$$

$$L = u$$

$$w = 3$$

$$B = 18$$

$$TA = 18 \cdot 9 + 2(18)$$

$$h = 9$$

$$P = 18$$

$$TA = 198$$

(32)

$$h = 3e$$

$$750 = 2S^2 + (18)(3e)$$

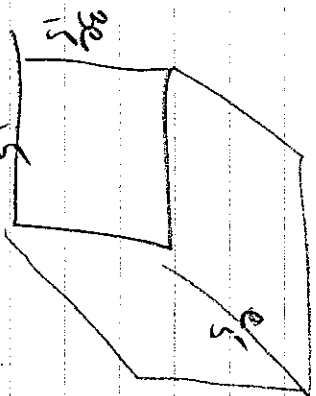
$$750 = 2S^2 + 12e$$

$$750 = 14S^2$$

$$P = 48$$

$$750 = 2S^2 + 12e$$

$$750 = 14S^2$$



$$750 = 2(3e)^2 + (12e)e$$

$$750 = 18e^2 + 12e^2$$

$$25 = e^2$$

$$5 = e$$

$$V = 15 \cdot 15 \cdot 5 = 1125$$

