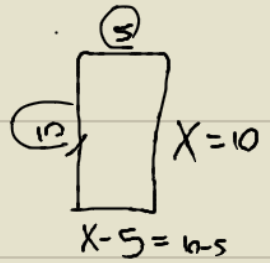
(1)



$A = 50$

$A = LW$

$50 = X(X-5)$

$0 = X^2 - 5X - 50$ (PSD)

$0 = (X+5)(X-10)$

$X+5=0 \quad X-10=0$

$X=-5 \quad X=10$

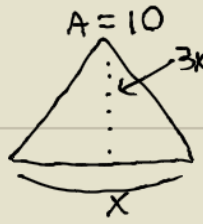
$X-5 = 10-5 = 5$

50

P	S	D
1.50	51	49
2.25	27	23
5.10	15	(5)

$L=10 \quad W=5$

(2)



$A = \frac{1}{2}bh$

$10 = \frac{1}{2}(X)(3X-28)$

$2 \cdot 10 = 2 \cdot \frac{1}{2}(3X^2 - 28X)$

$20 = 3X^2 - 28X$

KEY# $0 = 3X^2 - 28X - 20$

$0 = 3X^2 - 30X + 2X - 20$

$0 = 3X(X-10) + 2(X-10)$

$0 = (X-10)(3X+2)$

$X-10=0 \quad 3X+2=0$

$X=10 \quad 3X=-2$

$X=-\frac{2}{3}$

$b=10$

$h = 3X-28$

$= 3(10)-28$

$= 30-28$

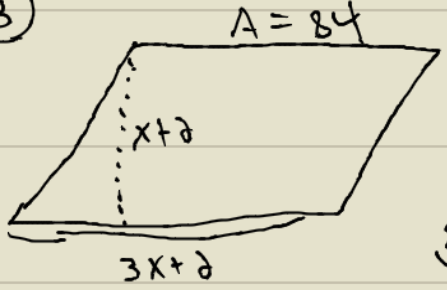
$h = 2$

$ac = 3(20)$

$= 60$

P	S	D
1.60	61	59
2.30	32	(28)
3.20	23	17
4.15	19	11
5.12	17	7
6.10	16	4

(3)



$A = hb$

$84 = (X+2)(3X+2)$

$84 = 3X^2 + 2X + 6X + 4$

$0 = 3X^2 + 8X + 4 - 84$

$0 = 3X^2 + 8X - 80$ (KEY#)

$0 = 3X^2 + 20X - 12X - 80$

$0 = X(3X+20) - 4(3X+20)$

$0 = (3X+20)(X-4)$

$3X+20=0 \quad X-4=0$

$3X=-20 \quad X=4$

$X=-\frac{20}{3}$

$h = X+2$

$= 4+2$

$h=6$

$b = 3X+2$

$= 3(4)+2$

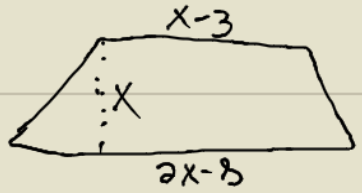
$b = 14$

$ac = 3(80)$

$= 240$

P	S	D
1.240	241	239
2.120	122	118
3.80	83	77
4.60	64	56
5.48	53	43
6.40	46	34
8.30	38	22
10.24	34	14
12.20	32	(8)
15.16	31	1

(4)



$A = 35$

$A = \frac{1}{2}h(a+b)$

$35 = \frac{1}{2}(X)(X-3+2X-8)$

$2(35) = 2(\frac{1}{2})X(3X-11)$

$70 = 3X^2 - 11X$

$0 = 3X^2 - 11X - 70$ KEY#

$0 = 3X^2 - 21X + 10X - 70$

$0 = 3X(X-7) + 10(X-7)$

$0 = (X-7)(3X+10)$

$X-7=0 \quad 3X+10=0$

$X=7 \quad 3X=-10$

$X=-\frac{10}{3}$

$h=7$

$a = X-3$

$a = 7-3$

$a=4$

$ac = 3(70)$

$= 210$

P	S	D
1.210	211	209
2.105	107	103
3.70	73	67
5.42	47	37
6.35	41	29
7.30	37	23
10.21	31	(11)
14.15	29	1

$b = 2X-8$

$b = 2(7)-8$

$b=6$