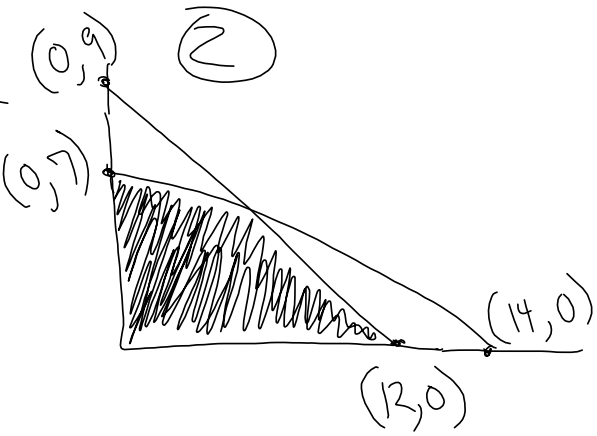
(1) Let x_1 be the number of cabinet A to produce
Let x_2 " cabinet B "

$10x_1 + 20x_2 \leq 140$
$6x_1 + 8x_2 \leq 72$
$Z = 8x_1 + 12x_2$



(2)

(3) $10x + 20y = 140$ → times 6 → $60x + 120y = 840$

$6x + 8y = 72$ → times −10 → $-60x - 80y = -720$

$40y = 120$

$y = 3$

$6x + 8(3) = 72$

$6x + 24 = 72$

$6x = 48$

$x = 8$

(4)

(x, y)	z
(0, 7)	84
(12, 0)	96
(8, 3)	100

X	Y	S1	S2	Z	RHS	$-2R1+5R2\to R2$
10	20	1	0	0	140	
6	8	0	1	0	72	——→
-8	-12	0	0	1	0	$3R1+5R3\to R3$

X	Y	S1	S2	Z	RHS	
10	20	1	0	0	140	$-R2+R1\to R2$
10	0	-2	5	0	80	——→
-10	0	3	0	5	420	$R2+R3\to R3$

X	Y	S1	S2	Z	RHS
0	20	1	-5	0	60
10	0	-2	5	0	80
0	0	1	5	5	500

$X = 60/20 = 3$

$Y = 80/10 = 8$

$5 = 1$

$5 = 100$

$f(x) = 2x^3 - 5x + 1$

$f(x) = 2x^3 - 5x + 1$

$f(x+h) = 2(x+h)^3 - 5(x+h) + 1$

$= 2(x^2 + 2xh + h^2)$

$f(x) = \frac{3}{2x^2}$

$= \frac{3}{2}x^{-2}$

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