6a) Price Sqft living. ①

B1	221900	1180
	538000	2570
B2	180000	770
	604000	1960

It-1. B-1

$\eta = 0.1$ epochs=1 $m=1$ and $c=-1$ $n=2$

$$\frac{\partial \epsilon}{\partial m} = -(0.5)((221900 - 1*1180 - (-1))*(1180) + (538000 - 1*2570 - (-1))*(2570))$$

$$= -((0.5)(260450780 + 1.376057671e9)$$

$$= -818254225$$

$$\frac{\partial \epsilon}{\partial c} = -(0.5)[(221900 - 1*1180 - (-1)) + (538000 - 1*2570 - (-1))]$$

$$= -((0.5)(220721 + 535431)$$

$$= -((0.5)(.378076))$$

$$= 0.5*756152$$

$$= 378076$$

$\Delta m = -(0.1)(-818254225)$

$= 81825422.5$

$\Delta c = 37807.6$

$m = 1 + 81825422.5$ $\quad$ $c = -1 + 37807.6$

$= 81825423.54$ $\quad$ $= 37806.6$

batch 2

$$\frac{\partial t}{\partial m} = -(0.5)\Big[(180000 - 81825423.54 * 770 - 37806.6) * 770 + (604000 - (81825423.54 * 1960) - 37806.6) * 1960\Big]$$

$$= -(0.5)\Big[(-4.85141841e13) + (-3.14339437e14)\Big]$$

$$= -(0.5)(-3.62853621e14)$$

$$= +1.81426811e14.$$

$$\frac{\partial e}{\partial c} = -(0.5)(-6.30054339e10 + c - 1.60377264e^{11}))$$ (3)

$= (0.5)(2.23882698e^{11})$

$= 1.1691349e^{11}$

$\Delta m = -0.1(1.81426811e^{14})$

$= -1.81426811e^{13}$

$\Delta c = -(0.1)(1.1691349e^{11})$

$= -1.1691349e^{10}$

$m = 81825423.54 - 1.81426811e^{13}$

$= -1.81425993e^{13}$

$c = 37806.6 - 1.1691349e^{11}$

$= -1.1691311e^{10}$