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(4) $Y = w_0 + w_1 x + w_2 x^2$

This linear hypothesis has 3 variable, thus there will be 3 equations.

$$\sum x_i^2 y_i = w_0 \sum x_i^2 + w_1 \sum x_i^3 + w_2 \sum x_i^4$$

$$\sum x_i y_i = w_0 m \sum x_i + w_1 \sum x_i^2 + w_2 \sum x_i^3$$

$$\sum y_i = w_0 m + w_1 \sum x_i + w_2 \sum x_i^2$$

x	y	x^2	x^3	x^4	xy	x^2y
0	2.4	0	0	0	0	0
1	2.1	1	1	1	2.1	2.1
2	3.2	4	8	16	6.4	12.8
3	5.6	9	27	81	16.8	50.4
4	9.3	16	64	256	37.2	148.8
5	14.6	25	125	625	73	365
6	21.9	36	216	1296	131.4	788.4
21	59.1	91	441	2275	266.9	1367.5

∴ Forming equations

$$7a + 21b + 91c = 59.1 \longrightarrow (a)$$

$$91a + 441b + 2275c = 1367.5 \longrightarrow (b)$$

$$21a + 91b + 441c = 266.9 \longrightarrow (c)$$

on solving these

$$y = 2.5095 - 1.2x + 0.733x^2$$

is the equation of parabola.