

x :	1	3	4	6	8	9	11	14
y :	1	2	4	4	5	7	8	9

Normal Eq: $y = ax^2 + bx + c$

$$\sum y = a \sum x^2 + b \sum x + nc$$

$$\sum xy = a \sum x^3 + b \sum x^2 + c \sum x$$

$$\sum x^2 y = a \sum x^4 + b \sum x^3 + c \sum x^2$$

x	y	xy	x ² y	x ²	x ³	x ⁴
1	1	1	1	1	1	1
3	2	6	54	9	27	81
4	4	16	64 64	16	64	256
6	4	24	144	36	216	1296
8	5	40	320	64	512	4096
9	7	63	567	81	729	6561
11	8	88	968	121	1331	14641
14	9	126	1764	196	2744	38416
$\sum x = 56$	$\sum y = 40$	$= 364$	$= 3882$	$= 524$	$= 5624$	$= 65348$

$$40 = 524a + 56b + 8c \quad \text{--- eq (i)}$$

$$364 = 5624a + 524b + 56c \quad \text{--- eq (ii)}$$

$$3882 = 65348a + 5624b + 524c \quad \text{--- eq (iii)}$$

After solving eq (i), eq (ii) & eq (iii) we will get;

$$a = 0.009$$

$$b = 0.510$$

$$c = 0.868$$

Required eqⁿ \Rightarrow $y = 0.009x^2 + 0.510x + 0.868$