Least Squares

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1 Introduction

hum: humidity measured by gehaka; cycles: cycles measured by our meter

Sample number	Cycles	Humidity
0	3497	11.1
1	3994	11.9
2	4511	13.0
3	4913	14.1
...	...	...
n	2900	10.1

$$y_n(x) = \sum_{k=0}^{n}{}' a_k T_k(x)$$

$$a * cycles + b = hum + error$$

$f(a,b) = [hum_0 - (a*cyclos_0)]^2 + [hum_1 - (a*cyclos_1)]^2 + ... + [hum_n - (a*cyclos_n)]^2$

To minimize this distance function, we need to set all first partial derivatives to zero:

$$\frac{\partial}{\partial a} yo$$

2 Conclusion