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import numpy as np
import sympy as sp
import matplotlib.pyplot as plt

M = [[1, 1, 1, 1], [1, 2, 4, 2**3], [1, 3, 9, 27], [1, 3.4, 3.4**2, 3.4**3]]
yv = [1.1, 2.1, 5, 7]
a = np.matmul(np.linalg.inv(M),yv)
x = sp.symbols('x')
y = a[0] + a[1]*x + a[2]*x**2 + a[3]*x**3          # Creating an equation
x_val = np.arange(0,4,0.01)
plt.plot(x_val, [y.subs(x,i) for i in x_val])      # subs=Substitute
plt.scatter([1, 2, 3, 3.4],[1.1, 2.1, 5, 7], c='k')
plt.title(sp.N(y,5))
plt.grid(); plt.show()

```