1. What line best represents the following data in the least-squares sense?

x	0	1	2
y	5	-6	7

2. Determine the straight line that best fits the data below in the least squares sense. Plot the data points and the least-squares line.

x	1.0	2.0	2.5	3.0
y	3.7	4.1	4.3	5.0

3. Find an equation of the form $y = ae^{x^2} + bx^3$ that best fits the points (-1,0), (0,1), and (1,2) in the least-squares sense.