

NMA – homework from week 3

1. Consider the following table of x and y coordinates of 7 points:

x	-1	-1	0	1	1	2	2
y	2.9	2.9	2.1	4	4.1	3.6	3.8

- Approximate these points by a line (i.e. a first degree polynomial) using the least square method.
- Compute the quadratic deviation δ .

2. Consider the following table of x and y coordinates of 8 points:

x	-2	-1	-1	0	0	1	1	2
y	9.9	4	4.1	0.1	0.2	-2	-2.5	-1.8

- Approximate these points by a polynomial of second degree using the least square method.
- Compute the quadratic deviation δ .