

Quiz #1

The sequence $x[n]$ denotes the measurements of an experiment:

$$x[0] = 0$$

$$x[1] = 10$$

$$x[2] = 20$$

$$x[3] = 10$$

We would like to fit a line $\hat{x}[n] = an + b$ to this data.

- a) Determine the parameters a and b that minimizes the least squares error.
- b) Calculate the error vector and verify the orthogonality condition for the optimal error vector.