Homework

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1. Section

(1) Subsection

Answer:

Answer question here! 啦啦啦啦

(2) Math

Answer:

Equation:

$$E_{in}(w) = \frac{1}{10} \sum_{i=1}^{10} (\hat{y}_i + y_i)^2$$
$$= \frac{1}{N} ||Xw - y||_2^2$$

Matrix:

$$\begin{bmatrix} 0.7 & 55 & 1 & 0 \\ 1.3 & 65 & 0 & 1 \\ 1.6 & 70 & 0 & 1 \end{bmatrix}$$

(3) Image

Answer:

(4) Code

Answer:

```python
import numpy as np
x = np.array([137, 135, 127, 122, 120, 118, 118, 117, 117, 114])
y = np.array([28540, 40133, 39900, 0, 0, 42050, 43220, 39565, 40400, 54506])

A = np.vstack([x, np.ones(len(x))]).T
m, c = np.linalg.lstsq(A, y, rcond=None)[0]
```