# Data reconciliation

## Python code

import numpy as np

y = np.matrix([[120.2], [95.2], [180], [142.8], [35.7], [80.2]])

V = np.matrix([

    [1.2\*\*2, 0, 0, 0, 0, 0],

    [0, 0.5\*\*2, 0, 0, 0, 0],

    [0, 0, 5.0\*\*2, 0, 0, 0],

    [0, 0, 0, 0.8\*\*2, 0, 0],

    [0, 0, 0, 0, 0.5\*\*2, 0],

    [0, 0, 0, 0, 0, 0.2\*\*2],

])

A = np.matrix([

    [1, 0, -1, 1, 0, -1],

    [0, 0, 1, -1, -1, 0],

])

ŷ = y-V\*(A.T)\*np.linalg.inv(A\*V\*(A.T))\*A\*y

print(f'{ŷ = }')

## Console result

Text

Description automatically generated