Regression 1:

Theta intercept: 467.3445829012642

Theta1 and Theta2 Parameters: [6.43234991 0.80954036]

Predicted values(y) on PB1_test.csv : [488.30468628 1445.76533622 689.45853301 632.86062651 1077.23847301

 1344.61676464 579.16712538 1495.5171089 1410.99907384 1521.92413008

 704.83979978 1400.65094097 1442.57114773 1512.84329441 976.24776574

 788.17848352 862.04057513 829.17525856 1118.04132884 1125.7229485

 1100.40733276 1402.8157244   931.00145167 897.57240492 1214.35068573

 1489.30462369 1511.57599721 752.47076197 1122.94254392 1298.82474786]

Mean square error on the test set: 83358.73386591669

Regression 2:

Theta1 and Theta2 Parameters: [7.98554746 0.03573724]

Theta intercept: 290.6377035073202

Predicted values(y) on PB2_test.csv : [1472.85610043 1329.54509292 1491.54322528 606.00515051 291.45965993

 1139.75029006 964.42561823 378.62167455 658.72336877 1102.71726884

 506.74780632 645.53977823 459.51352902 1209.94056715 506.46190843

 854.95087406 778.89969031 459.97811308 713.9074563 1561.16170659

 1472.57020255 587.53244908 1226.41198338 834.40541296 646.07583677

 796.55043532 1075.83017312 291.5311344   718.83919483 687.61174969]

Mean square error on the test set: 24691.88399295919

Classification 1:

Predicted Values on PB3_test.csv: [1. 1. 0. 1. 0. 1. 0. 0. 1. 0. 0. 1. 0. 1. 1. 1. 0. 1. 0. 0.]

Accuracy: 100.0 %

Classification 2:

Predicted Values on PB4_test.csv: [0. 0. 0. 0. 0. 1. 0. 0. 1. 0. 1. 1. 0. 1. 1. 1. 1. 1. 1. 1. 0. 0. 1. 1.

 0. 1. 0. 0. 1. 1.]

Accuracy: 23.33 %