1a)

The weights is a matrix of 2*1. We have only two weights where one is bias and other is weight for x. So, it will be a straight line with slope w1. The prediction of data is very innacurate and it does not even change much even by increasing the test samples which can be seen in figure 2. (No.of training samples is the only parameter which can be changed for varying the model.)

Training Data: 10, and Testing Data = 100

Training Data: 100, and Testing Data = 1000