

A scatter plot illustrating a linear decision boundary between two classes. The x-axis ranges from 0 to 800, and the y-axis ranges from 0 to 1000. The purple cluster is located on the left side of the plot, centered around x=200 and y=500. The orange cluster is located on the right side, centered around x=600 and y=500. A solid green line, representing the decision boundary, runs diagonally from the bottom-left to the top-right, separating the two clusters. The line passes through approximately (0, 250) and (400, 1000).

