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Problem 1

This problem I used k-means clustering to cluster my input data. I decided to cluster using 3 clusters. Cluster one is red, cluster two is green and cluster 3 is blue. Hold down space to see clustering in action. It takes around 19-20 iterations before the means become stable.

Problem 2

This problem I used the perceptron approach to create decision lines do divide the clusters. Press space once to cluster data and then enter to run perceptron. The lines could be better since I didnt use a large enough training vector.

Problem 3

Same as problem 2 just user can enter data and it will tell wich cluster your data belongs to. Enter x and y positions seperately.