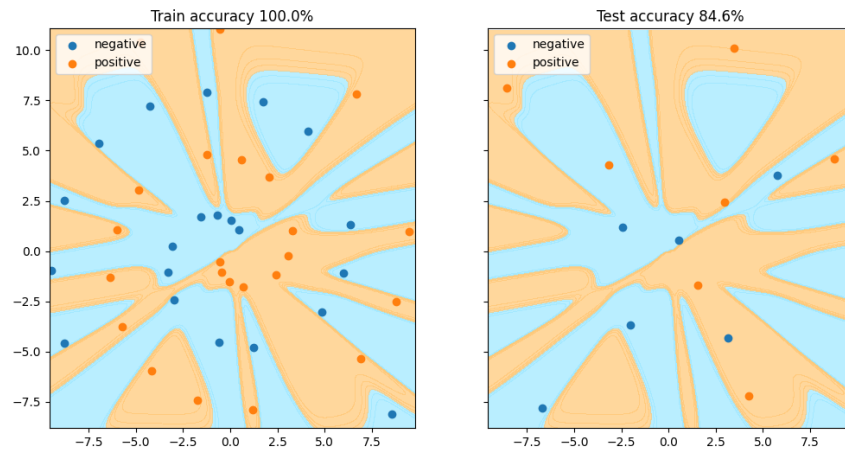


2.

a. Nope



b.

Figure 1: $N_iters = 10000$, $learning_rate = 1$, $alpha = 1$, $penalty = "l2"$, layer dimension of 32

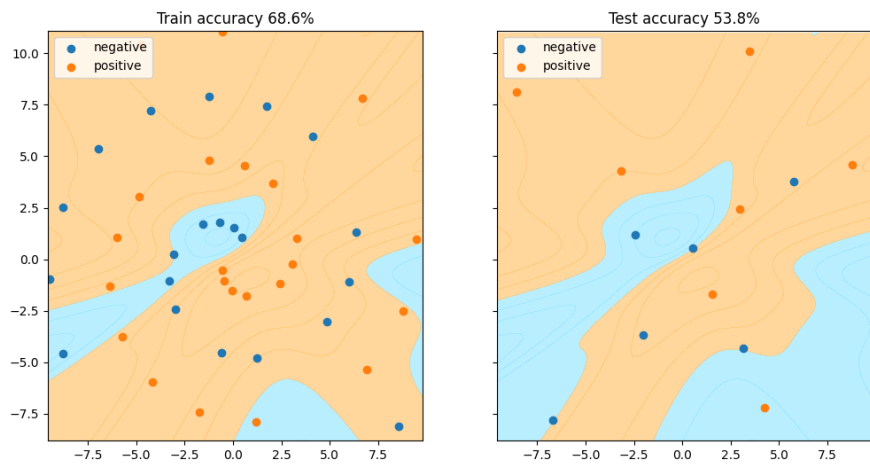
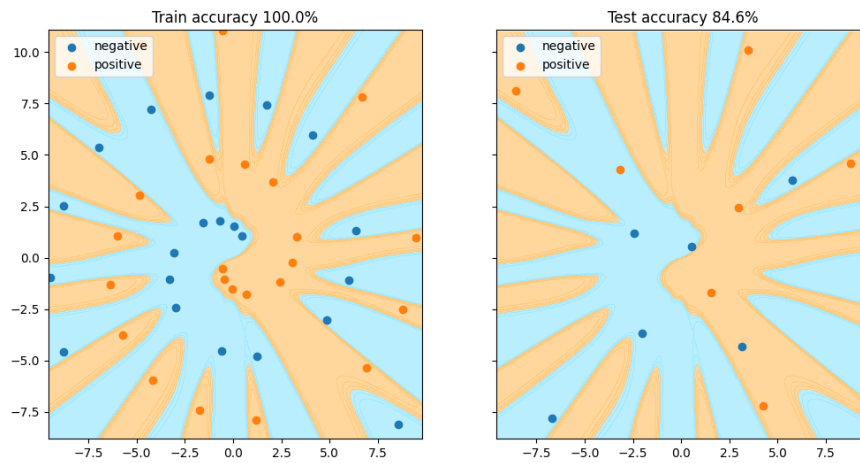


Figure 2: $N_iters = 200$, $learning_rate = 1$, $alpha = 1$, $penalty = "l2"$, layer dimension of 32

Number of iteration, learning rate, had no effect. Penalty L2 was more accurate than L1. Alpha also effected the fit of the model with 1 being the most accurate fit.



c.

Figure 3: most accurate plot

$N_{\text{iters}} = 10000$, $\text{learning_rate} = 1$, $\alpha = 1$, $\text{penalty} = \text{"l2"}$, layer dimension of 128 were the hyperparameters of the most accurate plot that I could find. Alpha had the most effect on the accuracy of the test.