COMS30017 Computational Neuroscience

Week 7 Problem sheet

Video 1
- The weights are initialized at (0, 0), with a learning rate of 0.1. Compute the final weights if we have x=(1, 0), y*=2, followed by x=(1, 1), y^*=-2.

Video 2
- Describe the main cerebellar pathway (cells + fibres), including as much detail as possible about firing rates, the number of cells etc.

Video 3
- For each conditioning paradigm, draw a sketch a plot showing how the weights over time.

Video 4
- Describe the differences between Rescorla-Wagner and TD learning.