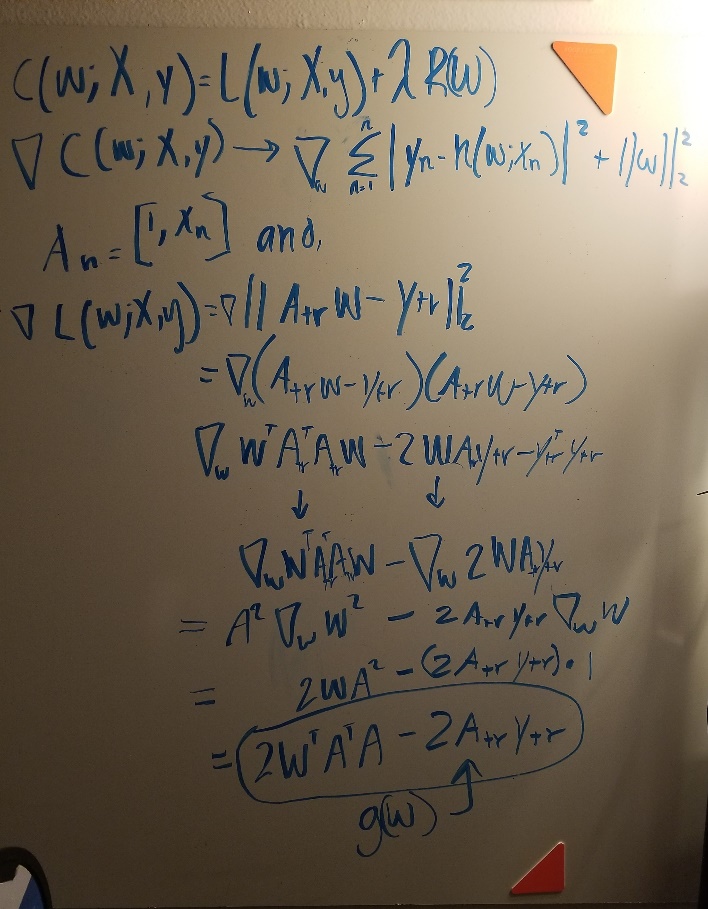
AI EXP : HW3 : Linear Regression

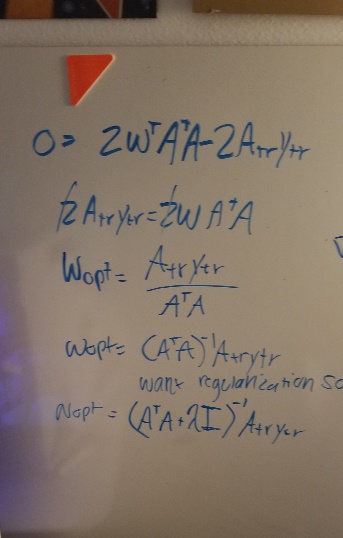
Alex Lamarche

**Problem 1: Setting up the functions**

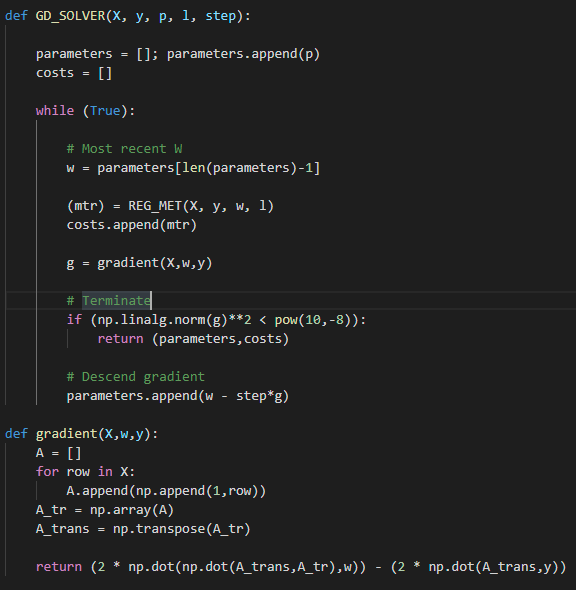
1.A - Scripts included or check the GitHub link here : <https://github.com/ajl3545/AI_HW3>

1.B – Derivation of g(w) the gradient function

1.C Derivation of g(Wopt) the gradient function whose value is: g(w) = 0



1.D – Gradient Algorithm presentation and effects of α and τ:



*Discussion –* By following down the gradient of the cost functions L(w; x,y), otherwise known as REG\_MET(x,y,w,l), we can minimize that function to find the most optimal w parameters.