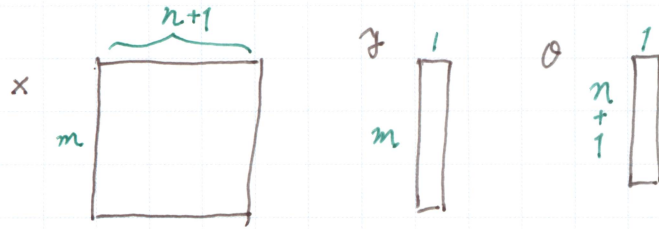


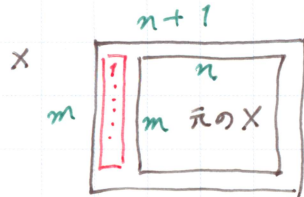
Ex5

$$[J, \text{grad}] \leftarrow \text{linearRegCostFunction}(X, y, \theta, \lambda)$$



m : データセットの数
 n : $s^{(1)} = 1$

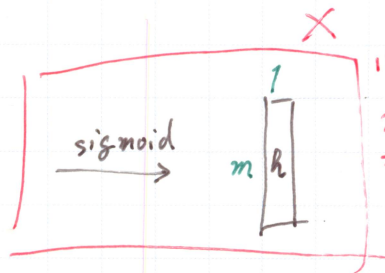
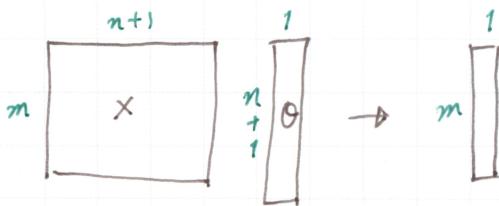
(1) X に bias (=1) を付加する



必要なし

ex5. m の中で $\text{linearRegCostFunction}$ を呼ぶ前に行われているので.

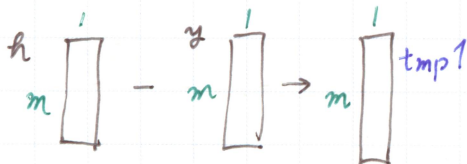
(2) h を求める



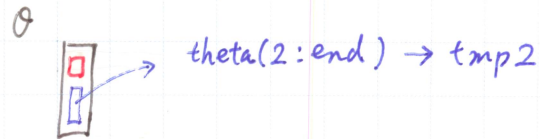
必要なし

neural network ではなく、単なる回帰なので.

(3) J のペナルティ部分



regularization

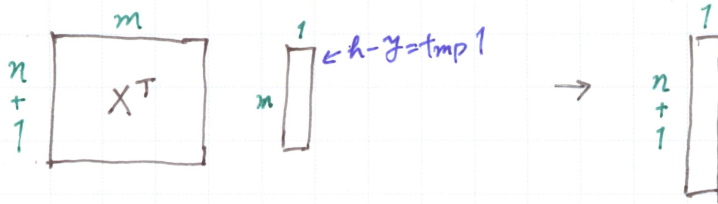
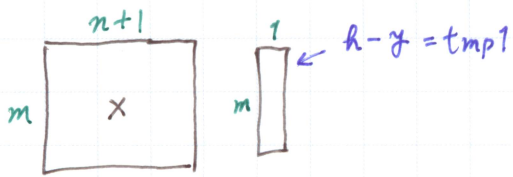


$$\therefore J = (\text{tmp1}^T \cdot \text{tmp1} + \text{tmp2}^T \cdot \text{tmp2}) / (2m)$$

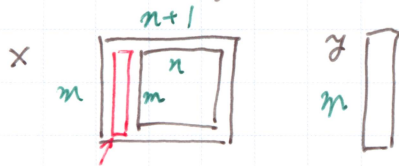
ex 5

Regularized linear regression gradient

(1)



Ex5 Learning curve ($X, y, X_{val}, y_{val}, \lambda$)



呼出しポイントで追加されている