$$A \times = 5$$

$$e = 5 - 4 \times$$

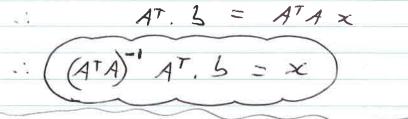
$$e^{T} = 5^{T} - x^{T} A^{T}$$

$$J = e^{T} e = (5^{T} - x^{T} A^{T})(5 - 4 \times)$$

$$J = 5^{T} b - 5^{T} A \times - x^{T} A^{T} b + x^{T} A^{T} A \times$$

$$\frac{\partial dJ}{\partial x} = 0 - A^{T} b - A^{T} b + 2A^{T} A \times$$

$$\frac{\partial dJ}{\partial x} = 0 - A^{T} b - A^{T} b + 2A^{T} A \times$$



Add
$$\lambda^2 \times \lambda^2 \times 10^{-4}$$
 funds
$$J_2 = J + \lambda^2 \times^7 \times \times 10^{-4}$$

$$dJ = -2A^Tb + 2A^TAx + \lambda^2 2Ix$$

$$J_2 = J + \lambda^2 \times^7 \times$$

$$dJ = -2A^Tb + 2A^TAx + \lambda^2 2Ix$$

Add is to the cost funds.

: dJ = -2ATB + 2ATAx + 122Ix

 $(A^TA + \lambda^2 I)^T \cdot A^Tb = X$