

# Linear Regression Hw

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$c = .2$

|                                 | x   | y   | Bias | Target | weights           | Net  | output | $\Delta w$      |
|---------------------------------|-----|-----|------|--------|-------------------|------|--------|-----------------|
|                                 | .3  | .8  | 1    | .7     | 0 0 0             | 0    | 0      | .042 .112 .14   |
|                                 | -.3 | 1.6 | 1    | -.1    | .042 .112 .14     | .307 | .307   | .024 -.13 -.081 |
| $\Delta w = c(t - \text{net})x$ | .9  | 0   | 1    | 1.3    | .066 -.018 .059   | .118 | .118   | .213 0 .236     |
|                                 |     |     |      |        | (.279 -.018 .295) |      |        |                 |

$$0.2(0.7 - 0)(.3 \ .8 \ 1) \Rightarrow (.042 \ .112 \ .14)$$

$$0.2(-.1 - .307)(-.3 \ 1.6 \ 1) \Rightarrow (.024 \ -.13 \ -.081)$$

$$0.2(1.3 - .118)(.9 \ 0 \ 1) \Rightarrow (.213 \ 0 \ .236)$$