Gradient decent. Doing it your self

Weights are changed in the opposite direction of the gradient of the error

\[ w'_i = w_i + \Delta w_i \]

\[ E = \frac{1}{2} \cdot (O - t)^2 \]

\[ O = \sum_i w_i \cdot I_i \]

\[ \Delta w_i = -\varepsilon \cdot \frac{\partial E}{\partial w_i} = -\varepsilon \cdot (O - t) \cdot I_i \]

Linear function

\[ O = I_1 \cdot w_1 + I_2 \cdot w_2 \]

What are the weights after 2 forward/backward iterations with the given input, and has the error decrease (use \( \varepsilon=0.1 \), and \( t=1 \))? 

\[ W_1=0.1 \]

\[ W_2=0.1 \]
Fill out the table

What are the weights after 2 forward/backward iterations with the given input, and has the error decrease (use $\varepsilon=0.1$, $t=1$)?

Linear function

$$O = I_1 \cdot w_1 + I_2 \cdot w_2$$

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<th>W2</th>
<th>O</th>
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