Perceptron Learning Example Function AND

| | | | | | | x | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Bias Input x0=+1 | | | | | | Alpha=0.5 | | | | |
| | | | | | | | | | | | | |
| Input | Input | Input | | | | Net Sum | Target | Actual | Alpha* | eight Values | | |
| X0 | X1 | X2 | 1.0*W0 | X1*W1 | X2*W2 | Input | Output | Output | Error | w0 | w1 | w2 |
| | | | | | | | | | | 0.5 | 0.5 | 0.5 |
| 1 | 0 | 0 | 0.5 | 0 | 0 | 0.5 | 0 | 1 | -0.5 | 0 | 0.5 | 0.5 |
| 1 | 0 | 1 | 0 | 0 | 0.5 | 0.5 | 0 | 1 | -0.5 | -0.5 | 0.5 | 0 |
| 1 | 1 | 0 | -0.5 | 0.5 | 0 | 0 | 0 | 1 | -0.5 | -1 | 0 | 0 |
| 1 | 1 | 1 | -1 | 0 | 0 | -1 | 1 | 0 | 0.5 | -0.5 | 0.5 | 0.5 |
| 1 | 0 | 0 | -0.5 | 0 | 0 | -0.5 | 0 | 0 | 0 | -0.5 | 0.5 | 0.5 |
| 1 | 0 | 1 | -0.5 | 0 | 0.5 | 0 | 0 | 1 | -0.5 | -1 | 0.5 | 0 |
| 1 | 1 | 0 | -1 | 0.5 | 0 | -0.5 | 0 | 0 | 0 | -1 | 0.5 | 0 |
| 1 | 1 | 1 | -1 | 0.5 | 0 | -0.5 | 1 | 0 | 0.5 | -0.5 | 1 | 0.5 |
| 1 | 0 | 0 | -0.5 | 0 | 0 | -0.5 | 0 | 0 | 0 | -0.5 | 1 | 0.5 |
| 1 | 0 | 1 | -0.5 | 0 | 0.5 | 0 | 0 | 1 | -0.5 | -1 | 1 | 0 |
| 1 | 1 | 0 | -1 | 1 | 0 | 0 | 0 | 1 | -0.5 | -1.5 | 0.5 | 0 |
| 1 | 1 | 1 | -1.5 | 0.5 | 0 | -1 | 1 | 0 | 0.5 | -1 | 1 | 0.5 |
| 1 | 0 | 0 | -1 | 0 | 0 | -1 | 0 | 0 | 0 | -1 | 1 | 0.5 |
| 1 | 0 | 1 | -1 | 0 | 0.5 | -0.5 | 0 | 0 | 0 | -1 | 1 | 0.5 |
| 1 | 1 | 0 | -1 | 1 | 0 | 0 | 0 | 1 | -0.5 | -1.5 | 0.5 | 0.5 |
| 1 | 1 | 1 | -1.5 | 0.5 | 0.5 | -0.5 | 1 | 0 | 0.5 | -1 | 1 | 1 |
| 1 | 0 | 0 | -1 | 0 | 0 | -1 | 0 | 0 | 0 | -1 | 1 | 1 |
| 1 | 0 | 1 | -1 | 0 | 1 | 0 | 0 | 1 | -0.5 | -1.5 | 1 | 0.5 |
| 1 | 1 | 0 | -1.5 | 1 | 0 | -0.5 | 0 | 0 | 0 | -1.5 | 1 | 0.5 |
| 1 | 1 | 1 | -1.5 | 1 | 0.5 | 0 | 1 | 1 | 0 | -1.5 | 1 | 0.5 |
| 1 | 0 | 0 | -1.5 | 0 | 0 | -1.5 | 0 | 0 | 0 | -1.5 | 1 | 0.5 |
| 1 | 0 | 1 | -1.5 | 0 | 0.5 | -1 | 0 | 0 | 0 | -1.5 | 1 | 0.5 |
| 1 | 1 | 0 | -1.5 | 1 | 0 | -0.5 | 0 | 0 | 0 | -1.5 | 1 | 0.5 |
| 1 | 1 | 1 | -1.5 | 1 | 0.5 | 0 | 1 | 1 | 0 | -1.5 | 1 | 0.5 |