

# Perceptron Learning Example - Function AND

Bias Input $x_0 = +1$						Alpha = 0.5						
Input			Weight			Net Sum	Target	Actual	Alpha	Weight Values		
$x_0$	$x_1$	$x_2$	$x_0 * w_0$	$x_1 * w_1$	$x_2 * w_2$	Input	Output	Output	Error	$w_0$	$w_1$	$w_2$
							$t$	0	$\alpha(t-0)$	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	1.5	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