

# The XOR Problem: Why Single-Layer Perceptrons Fail

## XOR Truth Table

$x_1$	$x_2$	XOR	Output
0	0	0 XOR 0	0
0	1	0 XOR 1	1
1	0	1 XOR 0	1
1	1	1 XOR 1	0

"Same inputs = 0, Different inputs = 1"

## XOR is NOT Linearly Separable

