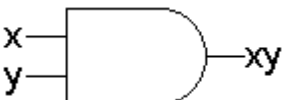

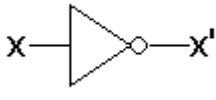


Operation: AND (product) of two inputs OR (sum) of two inputs NOT (complement) on one input

Expression: xy , or $x \bullet y$ $x + y$ x'

Logic gate:   

Truth table:

x	y	xy
0	0	0
0	1	0
1	0	0
1	1	1

x	y	x+y
0	0	0
0	1	1
1	0	1
1	1	1

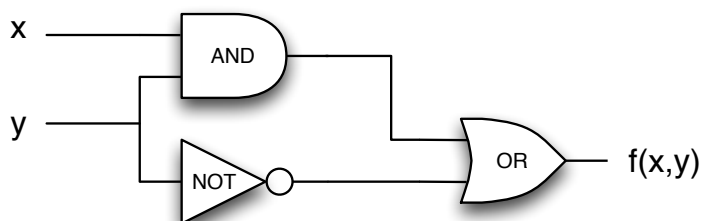
x	x'
0	1
1	0

Verilog: and a0(z, x, y) or o0(z, x, y) not n0(z, x)

(assuming the output wire is called "z"; names of gates are arbitrary.)

$$f(x,y,z) = (x + y')z + x'$$

$$f(1,0,1) = (\underline{\quad} + \underline{\quad})\underline{\quad} + \underline{\quad} = \underline{\quad}$$



$$f(x,y) = \underline{\hspace{2cm}}$$

Always bring a pencil to class!