

Note on NOT operator notation

- In Lecture 3, we use the following notation to denote the NOT operator in an equation:

$$F = \overline{E}$$

- Note that if your expression has more than 1 symbol, it is important to place the NOT operator in the right place, otherwise it may result in a different expression. For example, C, D, E are defined in the following equations:

$$C = \overline{A}\overline{B}$$

$$D = \overline{A}B$$

$$E = \overline{\overline{A}B}$$

And they are all different! i.e.,

$$C \neq D \neq E$$

Truth Table

- Let's write down the truth table:

A	B	\bar{A}	\bar{B}	AB	$C = \bar{A}\bar{B}$	$D = \bar{A}\bar{B}$	$E = \bar{\bar{A}\bar{B}}$
0	0	1	1	0	1	1	0
0	1	1	0	0	0	1	1
1	0	0	1	0	0	1	1
1	1	0	0	1	0	0	1