WE4.4

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Video explanation of solution is provided below the problem.

For the following problems, please use the following conventions when entering boolean expressions.

- $\bar{X}$: enter as not(X).
- X AND Y: enter as XY.
- X AND $\bar{Y}$: enter as Xnot(Y).
- X OR Y: enter as X + Y.
- $\bar{X}\bar{Y}$: enter as not(X)not(Y).
- Recall that $\overline{XY} = \bar{X} + \bar{Y}$ (not $\bar{X}\bar{Y}$).
- Extra white spaces are ignored.
- Lower or upper case letters are treated the same.
- Sum of products expression refers to an expression of the form ABC + not(A)not(B)C, where each term is a product term and ORing them together makes a sum of products expression. Note that within a product term negation can only be applied to a single variable at a time. In other words not(A)not(B) is acceptable but not(AB) is not.

Karnaugh Maps

1/1 point (ungraded)

Given the following truth table for function F, use a karnaugh map to determine the minimum sum of products expression for F. Use not(X) to express $\overline{X}$ in your answer.

A	B	C	F
0	0	0	1
0	0	1	0
0	1	0	0
0	1	1	1
1	0	0	1
1	0	1	1
1	1	0	0
1	1	1	1

not(b)not(c) + bc + anot(b) ✔

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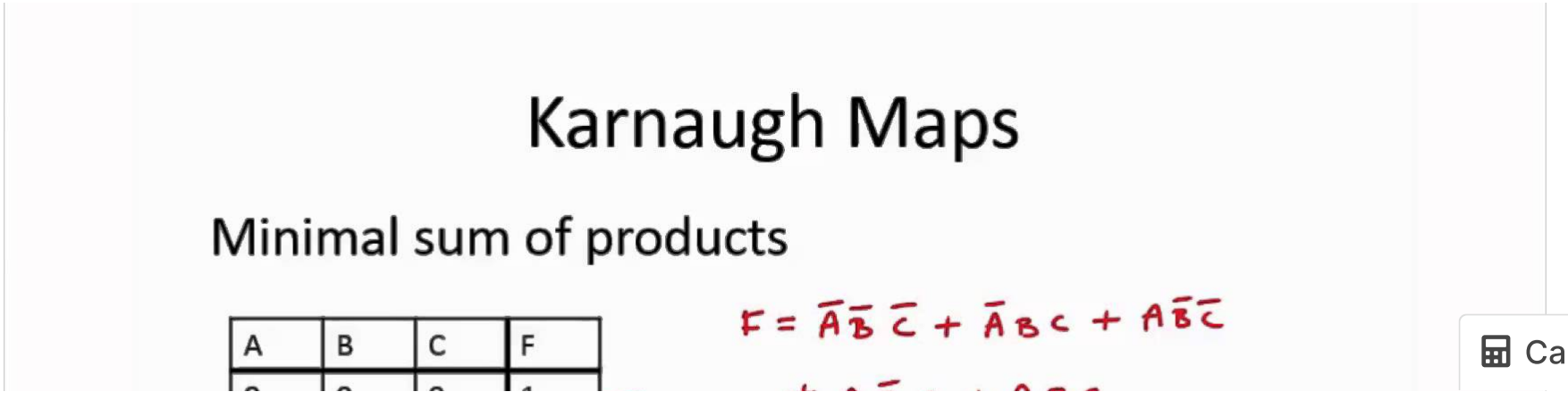
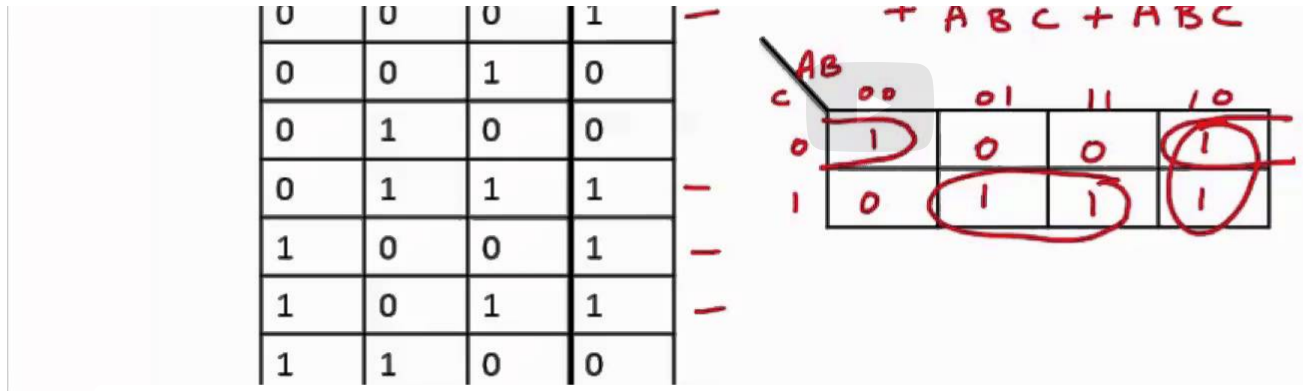
Karnaugh Maps



Calculator



(Caption will be displayed when you start playing the video.)

▶ 0:00 / 0:00 1.0x

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?	How about get not(F) firstly and then get F? Because there are fewer 0s than 1s in this task. I want to get not(F) firstly and then get the expression for F. However, I will get four p...	7

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