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## CSE 140 Cheat Sheet

Minterm: A product involving all of the inputs to the function. Maxterm: A sum involving all of the inputs to the function.

Product of Sums (POS): Each row of a truth table is associated with a minterm that is TRUE for that

row

 $\textbf{Sum of Products (SOP):} \ \text{Each row of a truth table corresponds to a maxterm that is FALSE for that}$ 

row.

## Midterm 1

Binary Arithmetic Chapter 1: One of the four problems:

- How many bits it takes to do certain operations and hold certain values
- How to do basic binary arithmetic
- Two's complement unsigned

Other three problems:

- K-maps
- Shannon expansion
- Boolean expressions, minterms, maxterms
- Prime implicants, essential prime implicants