Shixin Wang

Homework #1

Truth Table:

|  |  |  |  |
| --- | --- | --- | --- |
| A | B | C | X |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | 0 |
| 0 | 1 | 0 | 0 |
| 0 | 1 | 1 | 1 |
| 1 | 0 | 0 | 0 |
| 1 | 1 | 0 | 1 |
| 1 | 1 | 1 | 0 |

Sum-of-Products representation:

X = (!A && !B && C) || (!A && B && !C) || (A && !B && !C)

Where !A = NOT(A), !B = NOT(B), and !C = NOT(C).