Homework 1

CSE 232

March 2021

1. (30 points) Simplify the following function by using boolean algebra $F(x, y, z) = xy + x'z + yz$.

2. (30 points) Derive that $(x + y)(y' + z)(y + z) = (x + y)(x' + z)$ by using boolean algebra.

3. (a) (30 points) Express the following function in **sum of minterms** and **product of maxterms** by using truth table $F(A, B, C, D) = B'D + A'D + BD$.

   (b) (10 points) Simplify the standard expression $F(A, B, C, D) = B'D + A'D + BD$.