

This project asks you to use the Quine-McCluskey method to find a minimal expansion of a Boolean expression.

Find a minimal expansion of each of the following sum-of-products Boolean expressions by using the Quine-McCluskey method.

(a) $\bar{x} y z + \bar{x} \bar{y} z$

(b) $x y z + x y \bar{z} + \bar{x} y z + \bar{x} y \bar{z}$

(c) $x y \bar{z} + x \bar{y} z + x \bar{y} \bar{z} + \bar{x} y z + \bar{x} \bar{y} z$

(d) $x y z + x \bar{y} z + x \bar{y} \bar{z} + \bar{x} y z + \bar{x} y \bar{z} + \bar{x} \bar{y} \bar{z}$