

Due: Start of next class

$$f(a, b, c, d) = \sum m(0, 3, 5, 6, 7, 9, 14) + d(2)$$

- 1) For the equation above...
 - a) [1 point] Write a truth-table
 - a) [1 point] Write a Boolean-expression
 - b) [4 points] Using Karnaugh-maps, provide a reduced Boolean expression and draw the circuit
 - c) [2 points] Use a MUX to factor out the least significant bit and draw the simplified circuit
 - d) [6 points] Starting with your circuit in part c, reduce the circuit a further time!
(perform the MUX-factoring of the least significant bit again, use a DEMUX, something else?) For this part, please briefly explain what you did so that we can follow your logic!