

BLG 231E HW4
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Label 1: When x is 0, the output (Z) does not contain C' . Thus, C' will be produced when $x = 1$.

Label 2: Since the parallel adder is transformed into the subtractor when x is 1, the carry in bit is set to 1 if $x = 1$. ($A - C = A + (C' + 1)$)

Label 3: When y is 1, the output (Z) does not contain B . Therefore, B will be produced when $y = 0$.

Label 4: Since A will be produced when $x = 0$ or $y = 1$, A is connected to 1 input of MUX above, and 0 input of MUX below.