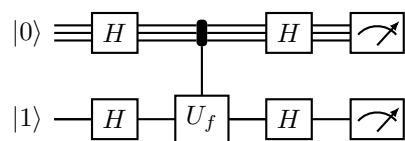


Quantum Algorithms Homework

Grace Unger

April 19, 2023

- 1) Draw the n -variable Deustch Oracle circuit. It is clear to see that this is given by:



where the input $|0\rangle$ is understood to mean $|0\rangle^{\otimes n}$, and U_f is the function to be tested.