1) Are the following qubits entangled or not entangled?

a. $\frac{1}{\sqrt{2}}(|00\rangle + |01\rangle)$ Not Entangled

b. $\frac{1}{\sqrt{2}}(|11\rangle + |01\rangle)$ Not Entangled

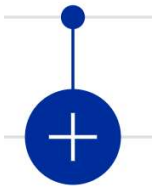
c. $\frac{1}{\sqrt{2}}(|10\rangle + |01\rangle)$ Entangled

d. $\frac{1}{\sqrt{2}}(|10\rangle - |11\rangle)$ Not Entangled

2) And if you feel like it, the following:
Go to IBM quantum composer https://quantum.ibm.com/composer

a. Create a program containing a single qubit which has a 50% chance of yielding 1 and a 50% chance of yielding 0.

b. Create a program using two qubits and the controlled not operation (the top qubit is the control qubit and the bottom qubit is the target qubit.



For this circuit, what is the truth table?

Control qubit	Target qubit	Control output	Target output
0	0		
0	1		
1	0		
1	1		