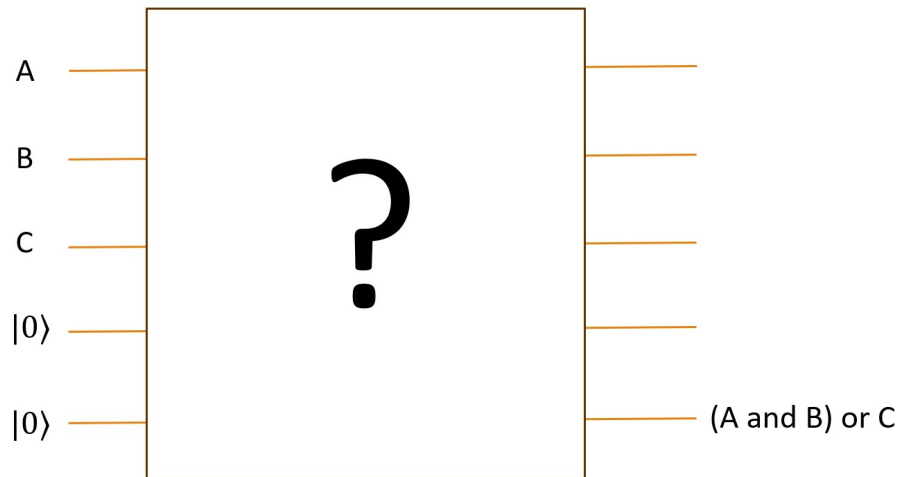


Activity 17

Create a quantum circuit which evaluates the Boolean expression (A and B) or C using IBM's quantum simulator. This will require three qubits (one for each variable A, B, and C) and at least one additional auxiliary qubit (two may be easier).



Explicitly show your circuit works correctly by showing the circuit output for every possible value of A, B, and C yields the following truth table:

A	B	C	(A and B) or C
0	0	0	0
0	0	1	1
0	1	0	0
0	1	1	1
1	0	0	0
1	0	1	1
1	1	0	1
1	1	1	1