REPORT

Quantum Logic Gates

<u>Hadamard gate:</u> It redistributes each input's probability in order to give the output an equal chance of being either a 0 or a 1.

<u>CNOT:</u> The first qubit is typically referred to as the control qubit and the second qubit as the target qubit in this two-qubit operation.

<u>SWAP:</u> This operation uses two qubits. The SWAP gate switches the states of the two qubits involved in the operation when expressed in basis states.