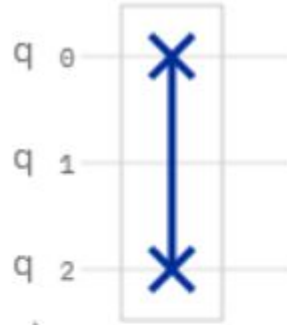# Practice Questions: BernVaz Oracle

(TRUE / FALSE) Even when you cannot use tensor product, you can construct an oracle's matrix by examining the inputs and outputs.

BernVaz PQ

For a circuit with 3 qubits, a SWAP gate operates on the top and bottom qubits. What is the truth table for this operation?

a.
000 | 000
001 | 100
010 | 010
011 | 110
100 | 001
101 | 101
110 | 011
111 | 111

b.
000 | 000
001 | 001
010 | 100
011 | 101
100 | 011
101 | 011
110 | 110
111 | 111

c.
000 | 000
001 | 010
010 | 001
011 | 011
100 | 100
101 | 110
110 | 101
111 | 111

BernVaz PQ