## Practice Questions: GHZ

(True / False) The GHZ circuit defines how to entangle 3 qubits.

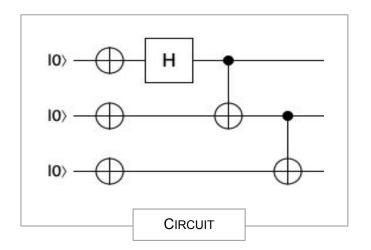
## What is the state output from this circuit?

a. 
$$\frac{1}{\sqrt{2}}(|000\rangle + |111\rangle)$$

b. 
$$\frac{1}{\sqrt{2}}(|010\rangle + |101\rangle)$$

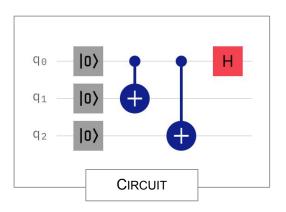
c. 
$$\frac{1}{\sqrt{2}}(|010\rangle - |101\rangle)$$

d. 
$$\frac{1}{\sqrt{2}}(|000\rangle - |111\rangle)$$



(True / False) The circuit pictured above generates a fully entangled state.

Select the true statement(s) about the circuit pictured below.



## To create a GHZ state:

- a. The H gate should be placed before the first CNOT
- b. The first CNOT needs to be flipped upside down
- c. The second CNOT should connect  $q_{_0}$  and  $q_{_1}$ , not  $q_{_0}$  and  $q_{_2}$
- d. No changes are needed