

Visual Superposition State: Practice Questions

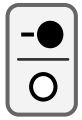
The H gate () :

a) Entangles two qubits

b) Puts a qubit into superposition

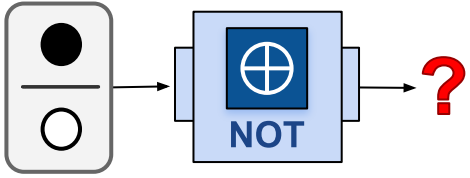
c) Performs measurement

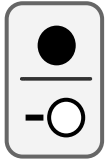
d) Toggles the input value (e.g., ○ ⇨ ●)

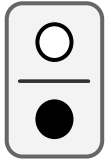
The negative sign (-) in  indicates the _____.

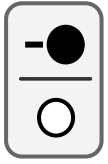
A. Probability
B. Input
C. Output
D. Phase

Select the option(s) that describe the state of the qubit at ?.



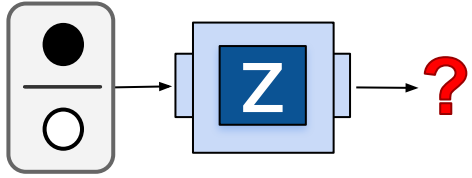
A. 

B. 

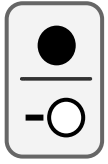
C. 

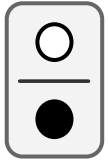
D.

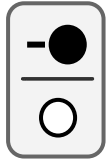
Select the option(s) that describe the state of the qubit at ?.



New!

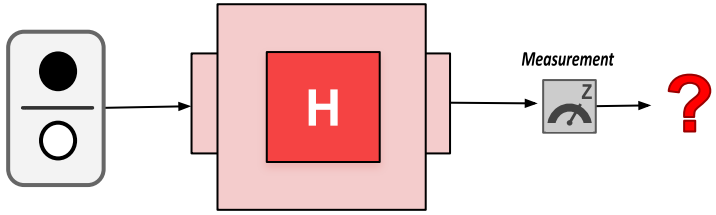
A. 

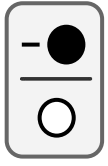
B. 

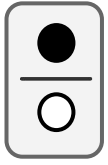
C. 

D. ○

Select the option(s) that describe the state of the qubit at ?.



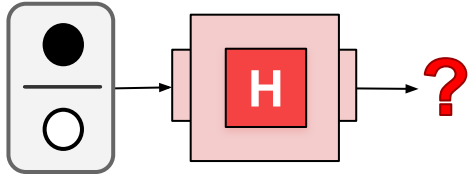
A. 

B. 

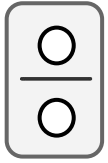
C. ○

D. ●

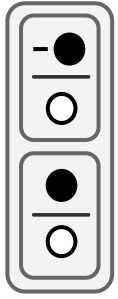
Select the option(s) that describe the state of the qubit at ?.



A.

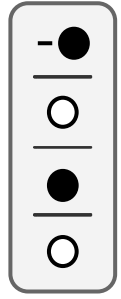


B.

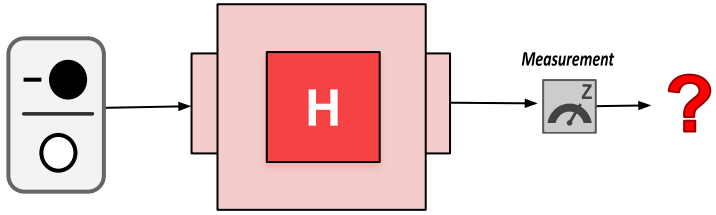


C.

D.



Select the option(s) that describe the probability of each outcome for this circuit (at ?).



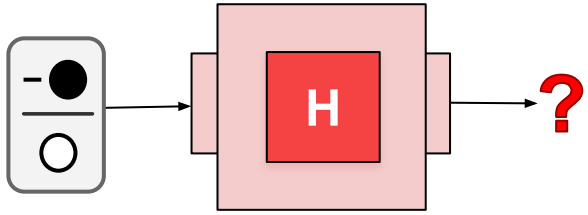
A. ● : 50%
○ : 50%

B. ● : 100%
○ : 0%

C. ● : 0%
○ : 100%

D. ● : 75%
○ : 25%

Select the option(s) that describe the probability of each outcome for this circuit (at ?).



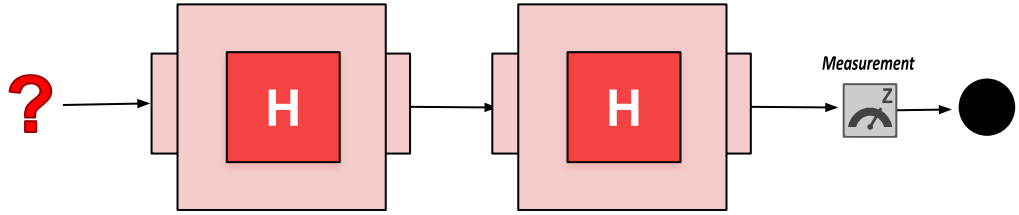
A. ● : 50%
○ : 50%

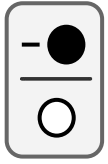
B. ● : 100%
○ : 0%

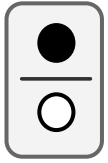
C. ● : 0%
○ : 100%

D. ● : 75%
○ : 25%

Select all possible inputs for this circuit (at ?).



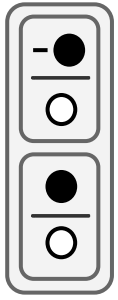
A. 

B. 

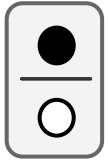
C. ○

D. ●

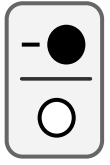
Select the option(s) that describes the same quantum state as:



A.



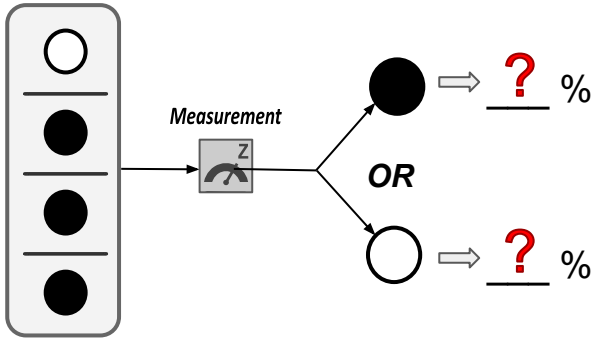
B.



C. ○

D. ●

Select the option(s) that describe the probability of each outcome.

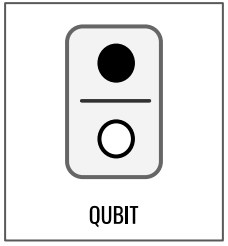


A. ● : 50%
○ : 50%

B. ● : 100%
○ : 0%

C. ● : 25%
○ : 75%

D. ● : 75%
○ : 25%



This visual representation shows a qubit in superposition. (true / false)

There is a 50 % chance of measuring the qubit as ○ . (true / false)