

Measure qubit A.

Pauli X basis: $\text{Prob}\{+1\} = \text{Prob}\{-1\} = \frac{1}{2}$

Pauli Y basis: $\text{Prob}\{+1\} = \text{Prob}\{-1\} = \frac{1}{2}$

Pauli Z basis: $\text{Prob}\{+1\} = \text{Prob}\{-1\} = \frac{1}{2}$

True for any basis of qubit A!