Teleportation

Resources

"ebit" gets used up by being measured or being sent to Bob

|β_{01}⟩ = \frac{1}{\sqrt{2}} (|00⟩ + |11⟩)

"cbit" = 1 bit classical info

"qbit" = 1 qubit

"ebit" = 2 qubits in entangled state

Question: If Alice wants to send something to Bob, what resources does she need?

- How many qubits need to be sent to communicate 1 cbit?
  A) 0  B) 1  C) 2  D) ∞

- How many ebits are required to communicate 1 cbit?
  A) 0  B) 1  C) 2  D) ∞ is not enough

- How many cbits are needed to communicate 1 qbit?
  A) 1  B) 2  C) log in precision  D) ∞ is not enough