

# Quantum Supremacy

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## Why in news?

- It's a new edge technology in computing

## What is this?

- Quantum supremacy refers to a quantum computer problem-solving process which cannot be solved in its normal life by a classic computer.
- The concept is linked to the speed of a quantum computer.
- Quantum computers vary from discrete digital electronic computers based on transistors (a semiconductor to reproduce, turn, and control electronic signals).
- For ordinary digital computing, the data must be encrypted in binary digits (bits), each in one of two definite states (0 or 1).
- Quantum Calculator uses quantum bits.
- They work according to two main quantity physics principles: overlap and interconnection.
- Overlay implies any qubit can be a '1' and a '0' simultaneously.
- Entanglement means qubits may be connected with each other in a superposition state; i.e. the position of a qubit may depend upon that of another qubit (whether it is a 1 or a 0. This means that particles are related to the other, so even when isolated by great distances, the action is achieved on one side. Albert Einstein ruled this phenomenon so much that he called it a "distant spooky motion."