

In this work we study Grover's algorithm for quantum computers. This algorithm promises to search in an unstructured database in time comparable with a square root of the number of objects. A description of basic

quantum computer principles is followed by the original Grover's formulation and a proof of the algorithm, as well as a later geometrical description of the algorithm. We also mention their suitability for educational purposes. We also include a description of the Grover's algorithm in a programming language, which makes it possible to simulate a quantum computing on classical computers.