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1. What is an algorithm?

Ans. An algorithm is a procedure or formula for solving a problem, based on conducting a sequence of specified actions. A computer program can be viewed as an elaborate algorithm. In mathematics and computer science, an algorithm usually means a small procedure that solves a recurrent problem.

2. What is an algorithm? What is the need for an algorithm?

Ans. *

- To understand the basic idea of the problem.
- To improve the efficiency of existing techniques.
- To understand the basic principles of designing the algorithms.
- To find an approach to solve the problem.
- To compare the performance of the algorithm with respect to other techniques.
- The algorithm gives a clear description of requirement and goal of the problem to the designer.

3. What is the complexity of algorithm?

Ans. Complexity of an algorithm is a measure of the amount of time and/or space required by an algorithm for an input of a given size (n).

4. Explain what is an algorithm in computing.

Ans. An algorithm is a well defined procedure that allows a computer to solve a problem. Another way to describe an algorithm is a sequence of unambiguous instructions. In fact, it is difficult to think of a task performed by your computer that does not use algorithms.

5. Fundamental types of algorithm?

Ans. Well there are many types of algorithm but the most fundamental types of algorithm are:

- * Recursive algorithms.
- * Dynamic programming algorithm.
- * Backtracking algorithm.
- * Divide and conquer algorithm.
- * Greedy algorithm.
- * Brute force algorithm.
- * Randomized algorithm.

6. What is a good algorithm?

Ans. A good algorithm should produce the correct output for only set of legal inputs. A good algorithm should execute efficiently with the fewest number of steps as possible. A good algorithm should be designed in such a way that others will be able to understand it and modify it to specify solutions to additional problems.