**Divide & Conquer, Recursion & Iteration**

**Task 1:**

Briefly explain the algorithm design paradigm “Divide and Conquer” and provide an example of a Divide and Conquer algorithm.

**Task 2:**

Implement the following functions both iteratively and recursively:

1. A function that searches an unordered list (of unique integers) for a given integer and returns true if it is found, and false if it is not (linear search).
2. A function that returns the factorial value of an integer.