## **What is Recursion?** The process in which a function calls itself directly or indirectly is called recursion and the corresponding function is called as recursive function. Using recursive algorithm, certain problems can be solved quite easily.

## Java Recursion

Recursion is the technique of making a function call itself. This technique provides a way to break complicated problems down into simple problems which are easier to solve.

Recursion may be a bit difficult to understand.

Adding two numbers together is easy to do, but adding a range of numbers is more complicated. In the following example, recursion is used to add a range of numbers together by breaking it down into the simple task of adding two numbers:

public class Main {

public static void main(String[] args) {

int result = sum(10);

System.out.println(result);

}

public static int sum(int k) {

if (k > 0) {

return k + sum(k - 1);

} else {

return 0;

}

}

}

Another example

int fact(int n)

{

if (n < = 1) // base case

return 1;

else

return n\*fact(n-1);

}