Exercise – Recursion

<table>
<tr><td colspan="4">Given a positive real number a and a non-negative integer n. Calculate an without using loops, ** operator or the built in function math.pow(). Instead, use recursion and the relation $a^n=a\cdot a^{n-1}$. Print the result. Form the function power (a, n).</td></tr>
<tr><td colspan="4">Given a sequence of integers. Print the sequence in reverse order using recursion.
Input: 1234567 Output: 7654321</td></tr>
<tr><td colspan="4">Compute the factorial of a number using recursion</td></tr>
<tr><td colspan="4">Given a non-negative integer n, print the n^{th} Fibonacci number. Do this by writing a function fib(n) which takes the non-negative integer n and returns the n^{th} Fibonacci number.</td></tr>
<tr><td colspan="4">Print following patterns using recursion.</td></tr>
<tr><td>*
* *
* * *
* * * *
* * * * *</td><td>*
* *
* * *
* * * *
* * * * *</td><td>*
* *
* * *
* * * *
* * * * *</td><td>* * * * *
* * * *
* * *
* *
*</td></tr>
<tr><td colspan="4">Given an integer number. Convert it into its equivalent Binary number using recursion.</td></tr>
<tr><td colspan="4">Implement Binary Search algorithm using the recursion.</td></tr>
</table>