1. Print this patterns--

a)
```
1                    b)        *
21                            **
321                          ***
4321                        ****
54321                      *****
```

2. Write down a program for matrix multiplication.
3. Write down a basic division program and take the inputs from user and make sure it does not generate any errors.
4. Implement a stack and a queue using an array. It should have basic function to print the Elements of the stack and queue.
5. Write a program to create a file and fill it with details given by the user.
6. State your understanding of Ruby's block, proc and lambda.
7. Create a class named 'Member' having the following members:
   Data members
   1 - Name
   2 - Age
   3 - Phone number
   4 - Address
   It also has a method named 'printSalary' which prints the salary of the members. Two classes 'Employee' and 'Manager' inherits the 'Member' class. The 'Employee' and 'Manager' classes have data members 'specialization' and 'department' respectively. Now, assign name, age, phone number, address and salary to an employee and a manager by making an object of both of these classes and print the same.

8. Count the number of occurrence of each letter in word "MISSISSIPPI". Store count of every letter with the letter in a dictionary.
9. From the previous question, sort according to the number of letters.
10. Write a function to check if a number is a perfect or not.