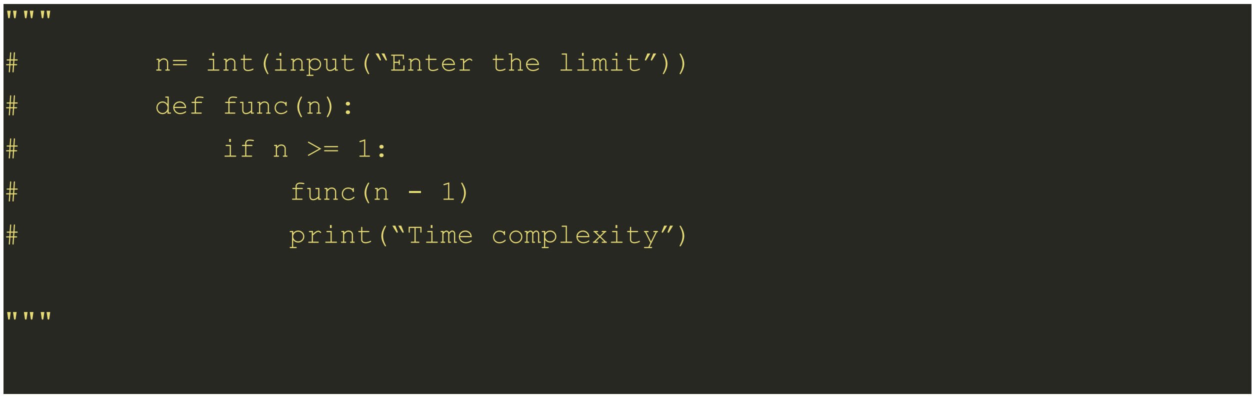
Tell time complexity of all the problems:
(ignore syntax errors, if any)

Q - 1)Below are nested “K” for loops (3 marks)

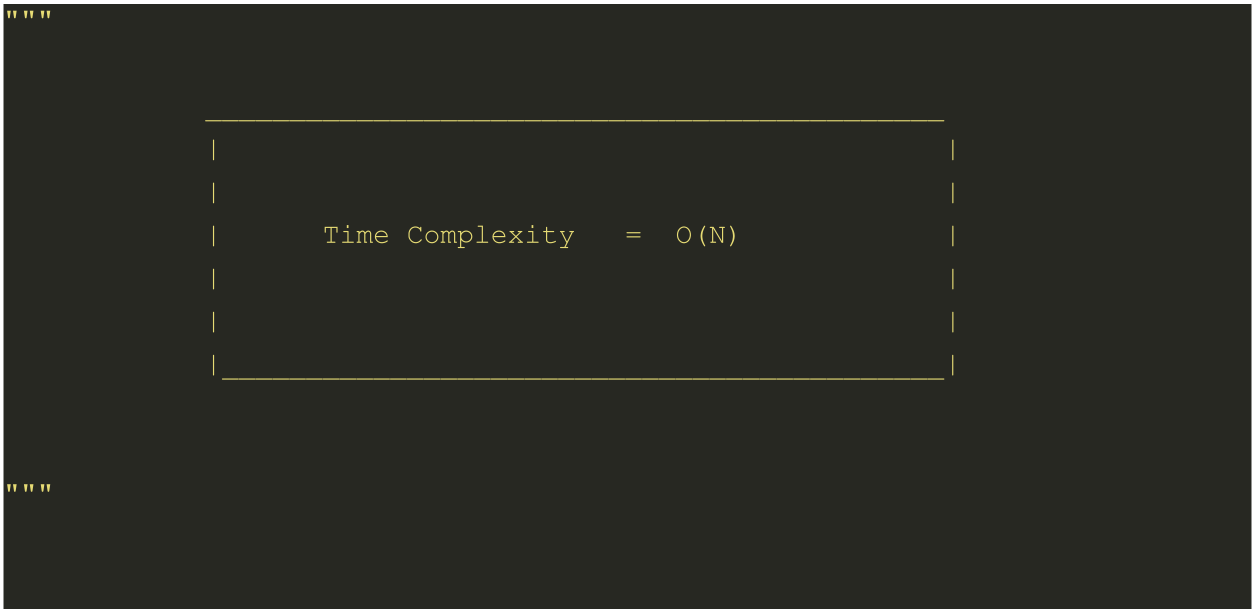
```
"""
#       n= int(input(“Enter the limit”))
#       for i in range(n):
#           for j in range(n):
#               for l in range(n):
#                   …
#                    …
#                     …
#                   K for loops in total
#                        …
#                         …
#                           …
#                           for z in range(n):
#                               print(“Time complexity”)

"""
```

```
"""

              ____________________________________________
              |                                           |
              |                                           |
              |      Time Complexity   =  O(N^4)          |
              |                                           |
              |                                           |
              |___________________________________________|



"""
```

Q - 2) Recursive function (3 marks)

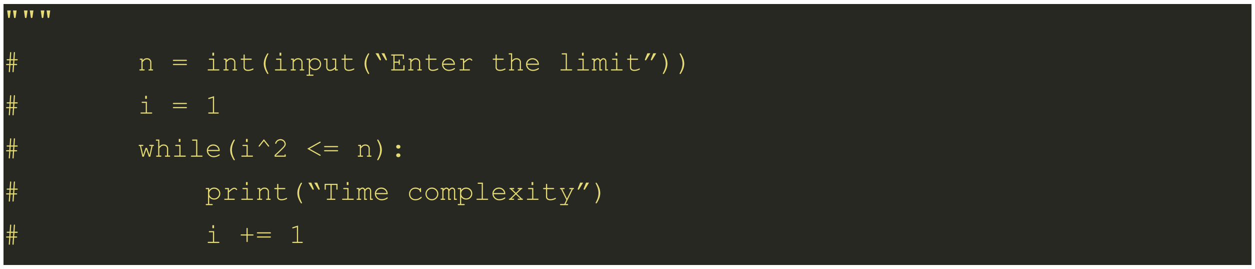


```
"""
#        n= int(input(“Enter the limit”))
#        def func(n):
#            if n >= 1:
#                func(n - 1)
#                print(“Time complexity”)

"""
```

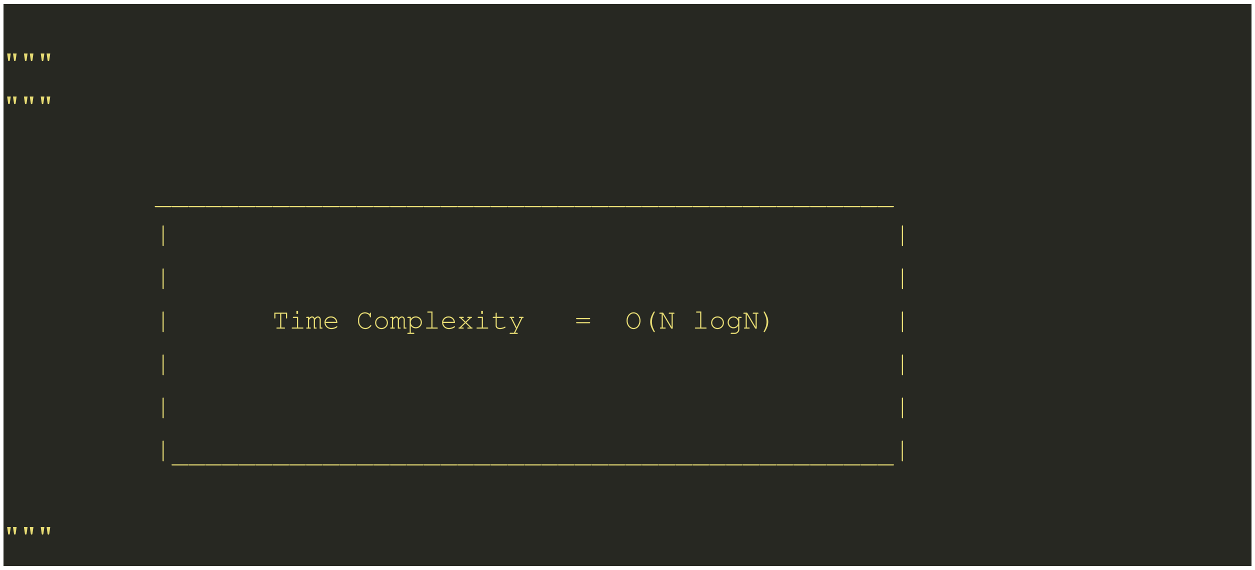


```
"""



            ____________________________________________
            |                                           |
            |                                           |
            |      Time Complexity   =  O(N)            |
            |                                           |
            |                                           |
            |___________________________________________|



"""
```

Q - 3) (3 marks)

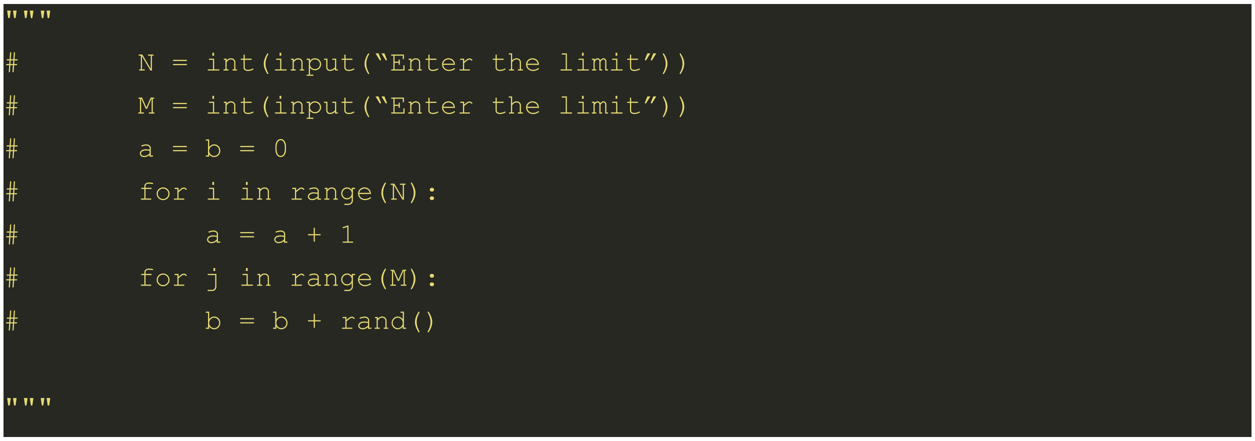


```
"""
#       n = int(input(“Enter the limit”))
#       i = 1
#       while(i^2 <= n):
#           print(“Time complexity”)
#           i += 1
```

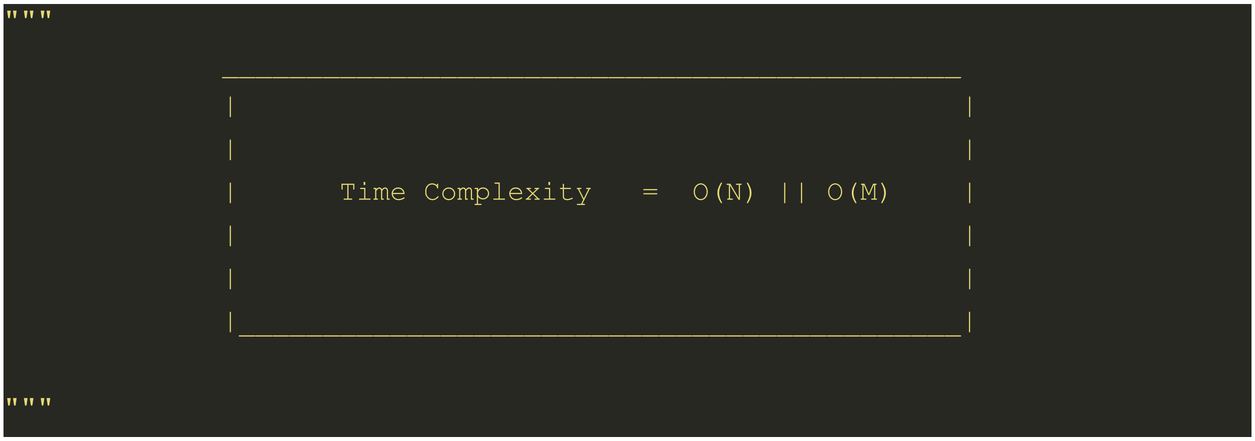


```
"""
"""


        _____________________________________________
        |                                           |
        |                                           |
        |      Time Complexity   =  O(N logN)       |
        |                                           |
        |                                           |
        |___________________________________________|

"""
```

Q - 4) (3 marks)



```
"""
#       N = int(input(“Enter the limit”))
#       M = int(input(“Enter the limit”))
#       a = b = 0
#       for i in range(N):
#           a = a + 1
#       for j in range(M):
#           b = b + rand()

"""
```



```
"""

            _____________________________________________
            |                                           |
            |                                           |
            |      Time Complexity   =  O(N) || O(M)    |
            |                                           |
            |                                           |
            |___________________________________________|

"""
```

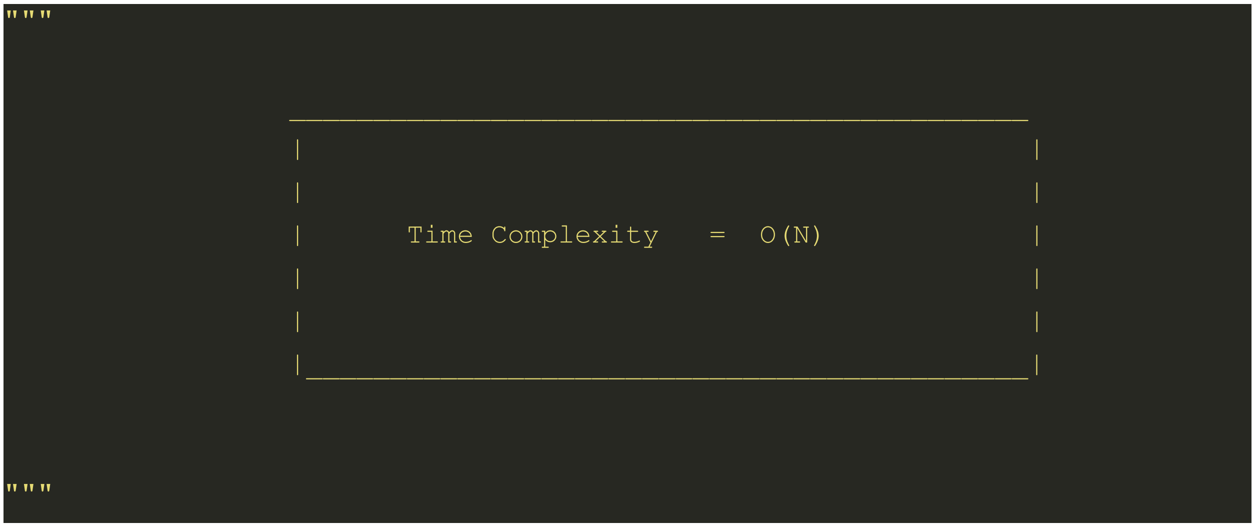
Q - 5) (3 marks)

```
"""
#       n= int(input(“Enter the limit”))
#       for i in range(n):
#           for j in range(i):
#               for k in range(100):
#                   print(“Time complexity”)

"""
```

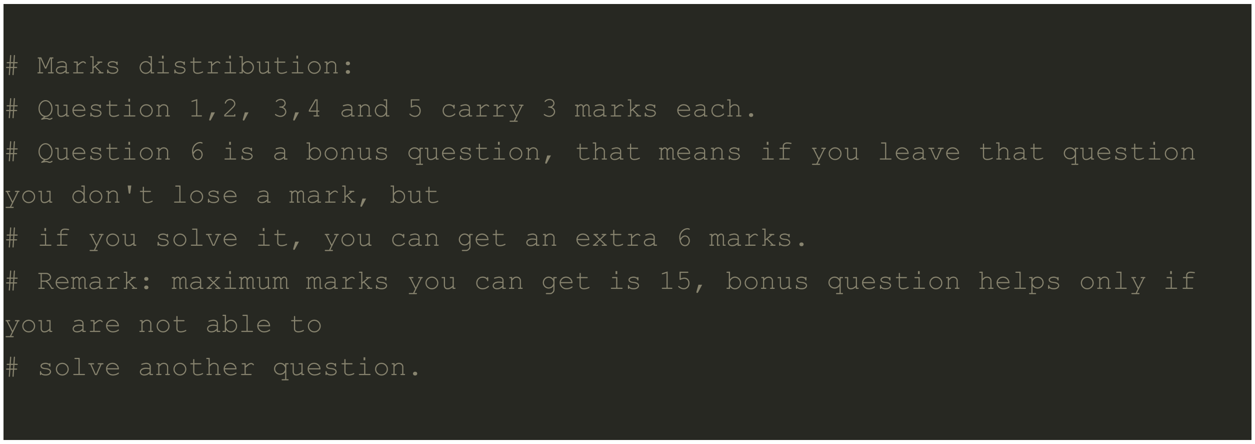
```
"""


               ____________________________________________
               |                                            |
               |                                            |
               |      Time Complexity   =  O(N^2)           |
               |                                            |
               |                                            |
               |____________________________________________|

"""
```

Q - 6) [BONUS QUESTION] (6 marks)

```
"""
#       n= int(input(“Enter the limit”))
#       for i in range(n):
#           j = 1
#       while(j <= i^2):
#           for k in range(n/2):
#               print(“Time complexity”)

"""
```



```
"""

                 ____________________________________________
                 |                                           |
                 |                                           |
                 |      Time Complexity   =  O(N)            |
                 |                                           |
                 |                                           |
                 |___________________________________________|


"""
```



```

# Marks distribution:
# Question 1,2, 3,4 and 5 carry 3 marks each.
# Question 6 is a bonus question, that means if you leave that question
you don't lose a mark, but
# if you solve it, you can get an extra 6 marks.
# Remark: maximum marks you can get is 15, bonus question helps only if
you are not able to
# solve another question.
```