Time Complexity Analysis - Examples

1. For following code segment, give the time complexity analysis, and the exact number of “*”s in the output:
   
   ```
   for i=1 to n
       print “*”
   ```

2. For following code segment, give the time complexity analysis, and the exact number of “*”s in the output:
   
   ```
   for i=5 to (n+2)
       print “*”
   ```

3. Give the time complexity analysis for following code segment:
   
   ```
   for i=1 to n
       for j=1 to n
   ```

4. For following code segment, give the time complexity analysis, and the exact number of “*”s in the output:
   
   ```
   for i=1 to n
       for i=n down to n/2
           print “*”
   ```

5. For following code segment, give the time complexity analysis, and the exact number of “*”s in the output:
   
   ```
   for i=1 to n
       for j=i to n
           print “*”
   ```
6. For following code segment, give the time complexity analysis, and the exact number of “*”s in the output:
   
   ```
   for i=1 to n
       for j=i to i+3
           print “*”
   ```
   
7. For following code segment, give the time complexity analysis, and the exact number of “*”s in the output:
   
   ```
   for i=n down to 1
       for j=i to n
           print “*”
   ```
   
8. For following code segment, give the time complexity analysis, and the exact number of “*”s in the output:
   
   ```
   for i=1 to n
       for j=1 to n
           if i>j
               print “*”
   ```
   
9. For following code segment, give the time complexity analysis, and the exact number of “*”s in the output:
   
   ```
   for i=1 to n
       if (i^2 < n)
           print “*”
   ```