Runtime Practice
How many steps are needed for each of the following code blocks? Classify each one as either: $O(1)$, $O(\log n)$, $O(n)$, $O(n \log n)$, or $O(n^2)$.

1. ```
n = int(input("n: "))
   for i in range(n):
      print(i)
```
2. ```
n = int(input("n: "))
   for i in range(100):
      print(i*n)
```
3. ```
n = int(input("n: "))
   for i in range(n):
      print(i)
      for j in range(n):
         print(j)
```
4. ```
n = int(input("n: "))
   for i in range(n):
      for j in range(n):
         print(i, j)
```
5. ```
n = int(input("n: "))
   for i in range(n):
      for j in range(i,n):
         print(i, j)
```
6. ```
n = int(input("n: "))
   for i in range(n):
      for j in range(10):
         print(i, j)
```
7. ```
n = int(input("n: "))
   while n > 1:
      print(n)
      n = n/2
```
8. ```
lst = [1,2,5,7,13,21,24,25,26,33,34,38,50,57,58,63]
n = len(lst)
mid = n//2
print lst[mid]
```
9. ```
n = int(input("n: "))
   for i in range(n):
      k = n
      while k > 1:
         print(i, k)
         k = k/2
```