

Find time complexity of below code snippets

1.

```
for (int i = 0; i < n; i++) {  
    System.out.println(i);  
}
```

2.

```
for (int i = 0; i < n; i++) {  
    for (int j = 0; j < n; j++) {  
        System.out.println(i + " " + j);  
    }  
}
```

3.

```
for (int i = 0; i < n; i++) {  
    for (int j = 0; j < i; j++) {  
        System.out.println(i + " " + j);  
    }  
}
```

4.

```
for (int i = 1; i < n; i *= 2) {  
    System.out.println(i);  
}
```

5.

```
for (int i = 1; i < n; i *= 2) {  
    for (int j = 1; j < n; j *= 2) {  
        System.out.println(i + " " + j);  
    }  
}
```

```
}
```

6.

```
int fact = 1;
for (int i = 1; i <= n; i++) {
    fact *= i;
}
```

7.

```
int[] arr = new int[n];
int target = 10;
for (int i = 0; i < n; i++) {
    if (arr[i] == target) {
        break;
    }
}
```

8.

```
int low = 0, high = n - 1;
while (low <= high) {
    int mid = (low + high) / 2;
    if (arr[mid] == target) {
        break;
    } else if (arr[mid] < target) {
        low = mid + 1;
    } else {
        high = mid - 1;
    }
}
```

9.

```

for (int i = 1; i <= Math.pow(2, n); i++) {
    System.out.println(i);
}

```

10.

```

int i = n, j = 1;
while (i > 0) {
    while (j < n) {
        j *= 2;
    }
    i /= 2;
}

```

11.

```

for (int i = 0; i < n; i++) {
    for (int j = 1; j < n; j *= 2) {
        System.out.println(i + " " + j);
    }
}

```

12.

```

void fun(int n) {
    if (n <= 1) return;
    fun(n / 2);
    fun(n / 2);
}

```

13.

```

int fib(int n) {

```

```
    if (n <= 1) return n;
    return fib(n - 1) + fib(n - 2);
}
```

14.

```
Arrays.sort(arr);
```

15.

```
for (int i = 0; i < n; i++) {
    for (int j = i; j < n; j++) {
        for (int k = i; k <= j; k++) {
            System.out.print(arr[k] + " ");
        }
    }
}
```

16.

```
for (int i = 0; i < n; i++) {
    for (int j = 0; j < n; j++) {
        for (int k = 0; k < n; k++) {
            c[i][j] += a[i][k] * b[k][j];
        }
    }
}
```

17.

```
for (int i = 0; i < n; i++) {
    for (int j = i + 1; j < n; j++) {
        System.out.println(i + " " + j);
    }
}
```

}