# Find the time complexity of the below code.

A . public class Demo {

1. void demo(int num) {
2. while (num >= 1) {
3. System.out.println(num);
4. System.out.println("=========");
5. num = num / 2;
6. }
7. }
8. }

Time complexity = 0(log n)

B. public class Demo {

1. void demo(int n){
2. for (int i = 1; i < n ; i = i \* 2)
3. System.out.println("Hello there!");
4. }
5. }

Time complexity = O (log n)

C. public class Demo {

1. int demo(int value){
2. int result = value \* value;
3. return result;
4. }
5. }

Time complexity = O (1)

D. public class Demo {

1. void demo(int n){
2. for (int i = 0; i < n; i++) {
3. for (int j = 0; j < n; j++) {
4. for (int k = 0; k < n; k++) {
5. System.out.println("Hello World");
6. }
7. }
8. }
9. }
10. }

Time Complexity = O (n^3)

E. public class Demo {

1. void demo(int n){
2. for (int i = 0; i < n; i++) {
3. System.out.println("Awesome :)!");
4. }
5. System.out.println("-------------------------------");
6. for (int j = 0; j < n; j++) {
7. System.out.println(":)!");
8. }
9. }
10. }

Time Complexity = O (n)

F. public class Demo {

1. void demo(int n){
2. for(int j = 0; j < n; j++){
3. for (int i = 1; i < n ; i = i \* 2)
4. System.out.println("Hello there!");
5. }
6. }

Time complexity = O (n log n)

G . public class Demo {

1. void demo(int n){
2. for(int j = 0; j < n; j++){
3. for (int i = 1; i < n ; i = i + 2)
4. System.out.println("Hello there!");
5. }
6. }  
     
   Time complexity = 0 (n^2)