National University of Computer and Emerging Sciences, Lahore Campus

Course:	Data Structures		Course Code:	CS218
Program:	BS(Computer Science)		Semester:	Fall 2022
Duration:	10 Minutes		Total Marks:	10
Paper Date:	8-Sept-22		Weight	
Section:	D		Page(s):	1
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Exam:	Quiz 1(b)		Section:	

Compute the time complexity of the following code fragment using step count method (frequency of each instruction) in the worst case. Also compute the big-oh of the time complexity function.

```
int sum,i,j,n;
sum = 0;      → 1)
cin>>n;       → 1)
for (i=1;i*i<=n;i=i+1)
    for (j=1;j*j<n;j=j*2)
        sum++;
```