Question:

a = 1

b = 1

while(b <= n)

{

a += 1;

b += a;

printf("Hi LetsUpgraders");

}

Answer:

In each iteration ,the value of “a” will be increased by “one” and the value of “b” will increases by “b+a”.

Let us assume the value of the n be 10.

The values that we will get are-

|  |  |
| --- | --- |
| a | b |
| 2  3  4 | 3  6  10 |

And the print statement will be executed for three times.

The relation between “n” and “number of times the statement printed” is as follows-

a2+1=n

a2=n-1 (here the value of n is very large so “+1” can be neglected)

so, a= sqrt(n)

The answer will be “O(sqrt(n))”.