

AP Term

Input :

a = 5

d = 2

n = 5

Output:

13

Explanation:

$an = a + (n-1)d = 5 + (5-1)*2 = 5 + 8 = 13$

The approach to calculate the nth term of an arithmetic sequence (also known as an arithmetic progression) is to use the formula: $an = a + (n-1)d$

Here, 'a' is the first term of the arithmetic sequence, 'd' is the common difference between consecutive terms, and 'n' is the term number.

To calculate the nth term, we substitute the values of 'a', 'd', and 'n' in the formula and solve for 'an'.

For example, if the first term of the arithmetic sequence is 5, the common difference is 2, and the term number is 5, we can calculate the 5th term as follows:

$an = a + (n-1)d$

$= 5 + (5-1) * 2$

$= 5 + 8$

$= 13$

Therefore, the 5th term of the arithmetic sequence is 13.

```
#include <bits/stdc++.h>
using namespace std;
void utility(int a, int d, int n){
    int ans = a + (n - 1) * d;

    cout << ans << endl;
}
```

```
int main() {  
  
    int t; cin>>t;  
    while(t--) {  
        int a, d, n;  
        cin>>a>>d>>n;  
        utility(a, d, n);  
    }  
}
```