**Sum of an AP**

[maths](http://www.practice.geeksforgeeks.org/tag-page.php?tag=maths&isCmp=0)

Write a program to print sum of an AP with n terms with first term a and common difference d.

**Input:**

The first line of the input contains T denoting the number of testcases. The first line of the test case will be the number of terms of AP and second line its first term and common difference.  
**Output:**

For each test case, output will be the sum of AP   
**Constraints:**

1 <= T<= 100

1 <= N <= 1000

1 <= a,d <= 100

**Example:**

Input:

1  
5  
1 3

Output:

35

\*\*For More Examples Use Expected Output\*\*

<http://www.practice.geeksforgeeks.org/problem-page.php?pid=311>

#include <iostream>

#include <stdio.h>

using namespace std;

int main() {

int t;

scanf("%d", &t);

while(t--) {

int n;

scanf("%d", &n);

int a,d;

scanf("%d %d", &a, &d);

int sum =0;

int x = a;

for(int i =0; i<n; i++) {

sum += x;

x += d;

}

printf("%d\n",sum);

}

return 0;

}