[(52) Find the Pivot Integer - LeetCode](https://leetcode.com/problems/find-the-pivot-integer/)

class Solution {

public:

int pivotInteger(int n) {

int sum = 0;

for(int i=1; i<=n; i++)

sum += i;

int temp = 0;

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

temp = temp + i;

if(temp == sum)

return i;

else

sum = sum - i;

}

return -1;

}

};

class Solution {

public:

int pivotInteger(int n) {

int ans = (n \* n + n ) /2;

int sq = sqrt(ans);

if(sq \* sq == ans)return sq;

else return -1;

}

};

**// Binary Search**

class Solution {

public:

int pivotInteger(int n) {

int start=0;

if(n==1)return 1;

int end=n;

while(start<=end)

{

int mid=(start+end)/2;

int sum1=(mid)\*(mid+1)/2;

int sum2=(n\*(n+1))/2-sum1+mid;

if(sum1==sum2)

{

return mid;

}

else if(sum1<sum2)

{

start=mid+1;

}

else

{

end=mid-1;

}

}

return -1;

}

};