Missing Number in an array, make sure sequence should be in order. It may be negative, positive numbers.

Eg: -2,-1,0,1,2,3,4,6,7 –> missing number 5

You can do this in O(n).

Iterate through the array and compute the sum of all numbers.

Now, sum of natural numbers from 1 to N, can be expressed as Nx(N+1)/2.

Subtract the sum of the array from Nx(N+1)/2. That is the missing number.

**public** **class** MissingNumber {

**public** **static** **void** main(String[] args)

{

**int** arr[]= {1,2,3,4,6,7,8};

**int** sum = 0;

**for**(**int** i=0;i<arr.length;i++)

{

sum = sum +arr[i];

}

System.***out***.println("total of given numbers : " +sum);

**int** sum1 = 0;

**for**(**int** j=1;j<=8;j++)

{

sum1 = sum1+j;

}

System.***out***.println("total : " +sum1);

**int** missingnum = sum1-sum;

System.***out***.println("missing number is : " +missingnum);

}

}

