

=====Coding Activity=====

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=====SOLUTION 1=====

CODE=

```
package testproject6;

import java.util.*;

public class SolProblem1 {

    public static void main(String[] args) {

        Scanner sc= new Scanner(System.in);

        System.out.println("Enter the testcases: ");

        int T=sc.nextInt();

        System.out.println("Enter the values: ");

        while(T-->0)

        {

            int N=sc.nextInt();

            int X=sc.nextInt();

            int Y=sc.nextInt();

            String S=sc.next();

            int o=0;

            int z=0;

            for(char ch : S.toCharArray())

            {

                if(ch=='1')

                    o++;

            }

        }

    }

}
```


=====SOLUTION 2=====

CODE=

```
package testproject6;

import java.util.*;

public class SolProblem2 {

    public static void main(String[] args) {

        Scanner sc= new Scanner(System.in);

        System.out.println("Enter the testcases: ");

        int T=sc.nextInt();

        while(T-->0)

        {

            System.out.println("Enter the number of coins: ");

            int N=sc.nextInt();

            int l=1,h=N;

            int maxheight=0;

            while(l<=h)

            {

                int mid=(l+h)/2;

                long comp=(long)mid*(mid+1)/2;

                if(comp<=N)

                {

                    maxheight=mid;

                    l=mid+1;

                }

                else

                {

                    h=mid-1;

                }

            }

        }

    }

}
```

```
        }  
    }  
    System.out.println(maxheight);  
}  
}
```

}

OUTPUT=

Enter the testcases:

4

Enter the number of coins:

3

2

Enter the number of coins:

3

2

Enter the number of coins:

5

2

Enter the number of coins:

7

3