**PROBLEMS**

1. **GreEK Factors**
2. **FibGCD**
3. **Cricket 3000**

**GreEK Factors:**

There are 4 friends named pi,tau,sigma,omega. Pi,Tau and Sigma,Omega are two teams. Their Teacher Gamma gave them a question to solve. Help them to solve the problem.

**Problem:** For a given number a series is given which is less than or equal to that number. We have to find the sum of that series.

let the number is 20

Series: 1 2 8 9 12 18

Sum: 50

let the number is 40

Series: 1 2 8 9 12 18 24 36 40

Sum: 150

So find the sum of the series for the given number.

**Input Format**

n is a positive integer

**Constraints**

n<65000

**Output Format**

positive integer

**Sample Test Cases:**

**Input 1:**

2

**Output:**

3

**Input 2:**

22

**Output:**

50

**GreEK Factors:**

Raji loves calculating sums but she has been stuck on this, can you help her to solve it.

given an integer N, find the value of sum=sigma from i=1 to N to the sigma from j=i to N to the function f(i,j)

where f(x,y)=1 if gcd(fib(x),fib(y))=1 f(x,y)=0 if gcd(fib(x),fib(y))!=1

fib(p)=pth fibinocci number

fib(1)=1 fib(2)=1

**Input Format**

First line will contain T which is no of test cases next T line contains N

**Constraints**

T<=10 N<=550

**Output Format**

T line seperated positive integers

**Sample Test Cases:**

**Input 1:**

2

3

5

**Output:**

3

5

12

**Input 2:**

4

1

2

3

7

**Output:**

1 3 5 22

**FibGCD:**

Raji loves calculating sums but she has been stuck on this, can you help her to solve it.

given an integer N, find the value of sum=sigma from i=1 to N to the sigma from j=i to N to the function f(i,j)

where f(x,y)=1 if gcd(fib(x),fib(y))=1 f(x,y)=0 if gcd(fib(x),fib(y))!=1

fib(p)=pth fibinocci number

fib(1)=1 fib(2)=1

**Input Format**

First line will contain T which is no of test cases next T line contains N

**Constraints**

T<=10 N<=550

**Output Format**

T line seperated positive integers

**Sample Test Cases:**

**Input 1:**

2

3

5

**Output:**

3

5

12

**Input 2:**

4

1

2

3

7

**Output:**

1 3 5 22

**Cricket 3000:**

Given in a game of cricket we have to find the runs scored by the players(1 to 11) or total score of the team if any other number is given. No of overs in given and ball by ball score is given of the total overs including Nb and Wd which results in 1 run extra. The ball next to Nb if it is Wicket it is not included.

If 2,1,6,Nb,Wd,W is given the wicket W is not counted.

Calculate the score given the number of overs and number of player.

If the given player number is not in the crease at the end of the over print -1

**Input Format**

n is overs which is a positive integer

a[i] where i=[0,1,2,3,4,6,W,Wd,Nb]

x is a positive integer

**Constraints**

n<=5 1<=x<=10000

**Output Format**

Runs Scored

**Sample Test Cases:**

**Input 1:**

1

6,6,6,Nb,W,6,W

3

**Output:**

-1

**Input 2:**

3

1,3,1,1,W,Nb,Wd,W,W,4,6,6,Nb,W,6,1,0,0,Wd,Nb,W,W,4

3

**Output:**

1

Hello 32,  
          You are one step closer to the hackathon of our CODE3000.  
 You will have 3 challenge in round 3 where you all have to participate in all challenges to qualify for hackathon.  
         **The link for challenge 1 is provided below and dont share this link other members who are not qualified.  
  
Hackerrank link:** [www.hackerrank.com/code3000-3-0](https://www.hackerrank.com/code3000-3-0)  
  
Thank you,  
Think hard, Code smart