



DIU TAKE OFF Programming Contest

Fall 2017, Permanent Campus

Organized By,
Computer & Programming Club
Daffodil International University
Permanent Campus

A. Are You Ready?

Score: 1

CPU: 1s

Memory: 512MB

Today is Monday 4th December. **Daffodil International University, Permanent Campus** is going to launch their programming ship with Hundreds of Programmers! You are one of them. So tie your seat belt tightly! Are You Ready? We are going to Take Off Right Now! But we need you to lunch the ship which required a simple code.



You need to write the code which will produce the line "**Let's Take Off!**" (Without quotes). For this, you just have to write the following code exactly and just submit.

```
#include <stdio.h>

int main()
{
    printf("Let's Take Off!\n");

    return 0;
}
```

Input

There is no input in this problem. Only write the code exactly and submit.

Output

Let's Take Off!

Sample

Input

```
/* There is no input for this problem */
```

Output

```
Let's Take Off!
```

B. Crisis of Tipu

Score: 1

CPU: 1s

Memory: 512MB

Tipu is a brilliant student department of **SWE** in **Daffodil International University, Permanent Campus**. For his study purpose he lives in a mess of jayed vai in **Changone**. He has good facilities over there. The mess consist of **8** members. But the problem is that most of the time Jayed vai provides eggs instead of fish and meat. Tipu is so sick of eggs. So he need to fix his meal. He want to confess with Jayed vai about that. And he need to know the total number of egg that is bought by Jayed vai in a month. He came to know that Jayed vai buy eggs for **n** days in a month for everyone (**8**) in mess. Now he has to calculate the total number of eggs that is bought by Jayed vai. But he is pretty weak in math.

Now as you are a programmer, you have good knowledge of math. So, you can help Tipu to calculate the total egg bought by Jayed vai so that he can talk Jayed vai to fix the problem.

Input

Here you are given an integer number **$0 < n \leq 30$**

Output

For input **n** you have to calculate the total number of eggs that are bought by Jayed vai for all members of mess and print the value as format given in output section.

Be aware of newline after the output.

Input

15

Output

Total egg = 120

Input

25

Output

Total egg = 200

Here assume that 1 month = 30 days.

Problem Setter (B. Crisis of Tipu) :

Md. Almadud Juwal

161-15-883

ACM Team

DIU CPC-PC

C. Be Like Motu Patlu!

Score: 1

CPU: 1s

Memory: 512MB

Motu and **Patlu** are good friends. They live in Furfuri Nagar with dignity. They love much to help people of Furfuri Nagar but today Motu is Facing a big problem. He has received the electricity bill paper. Then he noticed that there is a chart on the backside of the paper to calculate the total amount of Taka according to the kilo-watt is used but there was no description how to calculate.

Kilo-watt	Cost
1-100	3.38 Taka
101-200	5.12 Taka
201-400	6.56 Taka
More than 400	8.22 Taka

Motu is so much curious to solve the problem but he could not understand anything. So, he asked patlu to describe the approach to calculate it. Then Patlu told him if the total used-power is **270** kilo-watt of any month then

Total amount = (270 * 6.56) = 196.80 Taka

Motu still understand nothing. Now he came to you and asked you to write a program to solve this problem.

Input

Input will be an integer number K (kilo-watt). Here $1 \leq k \leq 2000$.

Output

Print the total amount of Taka for each month containing two digits after decimal point by this format "**Total: X Taka**" where X describes the amount. (use double-type to skip precision problem).

Samples

Input	Output
270	Total: 1771.20 Taka
Input	Output
200	Total: 1024.00 Taka
Input	Output
150	Total: 768.00 Taka

Problem Setter (C. Be Like Motu Patlu!) :

Jayed Al Hasan

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ACM Team

DIU CPC-PC

D. 2nd World War

Score: 1

CPU: 1s

Memory: 512MB

That was the Second World War. **Mr. Alan Brooke** was the commander of **US** army. From one operation **Mr. Alan Brooke** rescued a locked box that was full of information of enemy's war plan. He got some information to unlock the box. There was a random number **N** displayed on the box. Also, there was a tuning knob with **three** dials and if he rotates those dials, number appears over every dial. He had to input **3 odd number** by rotating those dials such that, the summation of those three numbers are equal to the displayed number **N** to unlock the box.

Would he be able to open the box?

Input

There will be a single integer number $0 < N < 100$ as input which indicate the **displayed** number.

Output

You have to determine that, would the commander is able to **open the box by rotating those dial or not?** If he would be able to open that box print **"Congrats"** [without quotes]. Otherwise print **"Better luck next time"** [without quotes].

Samples

Input

2

Output

Better luck next time

Input

11

Output

Congrats

Explanation:

1. In the first input it's not possible to divide the number with **three** **odd** number so output is **"Better luck next time"**.
2. In the second number **11** can be divided as **1+1+9** or **1+3+7** or **3+5+3** etc. So output is **"Congrats"**.

Problem Setter (D. 2nd World War) :

Md. Razibul Hasan Mithu

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ACM Team

DIU CPC-PC

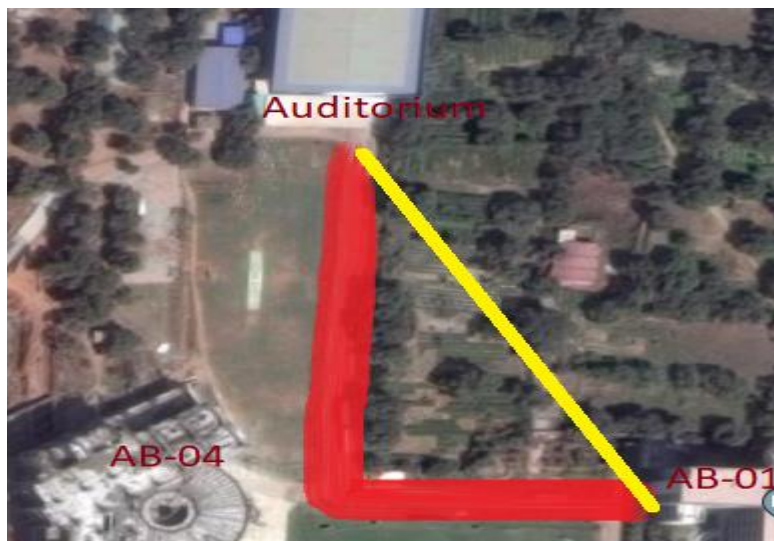
E. Lazy Motushotu

Score: 1

CPU: 1s

Memory: 512MB

Lazy Fahim has to be arrive within a certain time in Auditorium building from **AB-01** with meet up with his friend Shakil. But there are **two way** to go to auditorium from **AB-01**. One is the conventional way marked with **red line** in picture.(the road beside **AB-04**).The road has a **90 degree** turning point toward auditorium near the **AB-04** Building. But there is a shortcut way middle of the Jackfruit forest (**marked with yellow color**) . But there is many bush on the shortcut road which reduce the walking speed.



There will be given the distance of **AB-01** to **AB-04** and **AB-04** to Auditorium. And will be given the speed of the conventional way and the **speed** through the Jackfruit Jungle. If we define the **red marked** conventional path as **road1** and **yellow marked** path as **road2**. You have to determine by following which path Fahim will reach auditorium in small time, **road1** or **road2**?

Input

The first line of input contains an integer T ($1 \leq T \leq 100$), denoting the number of test cases. Each test case consists of four floating point A, B, F, S . A defines the distance of the path **AB-01** to **AB-04**, B defines the distance of the path **AB-04** to Auditorium. F and S defines the speed of walking during **road1** and **road2** respectively.

Output

For each test case, There will be one line output with answer either **road1** or **road2** according to calculation.

Sample

Input	Output
2	road2
2.00 3.00 4.00 4.00	road1
3.00 3.00 5.00 1.00	

Problem Setter (E. Lazy Motushotu) :

Fahim Abrar

161-15-903

ACM Team

DIU CPC-PC

F. Biggest Number

Score: 1

CPU: 1s

Memory: 512MB

Fahim JR is the last bencher of his class. Yesterday he proposed a first girl in his class. But she will accept **Fahim's** proposal for one condition if he could solve a problem. She gave Fahim JR a **Big number N**, He has to determine whether the number **completely divisible** by **2** or 'not'.

Now **Fahim JR** needs your help to solve the problem. Help Fahim to Save his Love!

Warning: N will be a very big number ex. 10^{100} .

Input

The first line of input contains an integer **T** ($1 \leq T \leq 100$), denoting the number of test cases. Each test case consists of one line containing an integer **N** ($0 \leq N \leq 10^{100}$).

Output

If number is completely divisible by **2** then print **YES**, otherwise print **NO**.

Sample

[illegible]

Problem Setter (F. Biggest Number) :

Amir Sohel

161-15-874

ACM Team

DIU CPC-PC

G. Legend Hablu and His Pets

Score: 1

CPU: 1s

Memory: 512MB

You probably heard the name **Legend Hablu**. Some of our great programmers meet him last semester. But this time he decided to meet with all programmers of DIU Permanent Campus. Because he is going to leave this planet for **N** years. He wants you to keep his favorite pets '**gulugulu**' and '**bulubulu**' with you. But there is a strange matter with his pets. The total number of his pets change and increase every year. This changing process follow a specific method like his one '**gulugulu**' pet become **One** '**gulugulu**' **One** '**bulubulu**' pet after a year. On the other hand his one '**bulubulu**' pet become **One** '**gulugulu**' pet after a year.

Now you have to find how many pet **Legend Hablu** will see after **N** year coming back to the Earth???

Input:

Input starts with an integer **T** (≤ 1000), denoting the number of test cases in the first line of input. Each test case will have one number, which denotes **N** ($1 \leq N \leq 80$)

Output:

For each test case, you must print how many pets **Legend Hablu** will see after **N** year coming back to the Earth. Follow the output format as given in the sample output.

Sample

Input	Output
3	Case 1: 3
1	Case 2: 8
3	Case 3: 433494437
40	

Problem Setter (G. Legend Hablu and His Pets) :

Rijoanul Hasan Shanto

152-15-572

ACM Team

DIU CPC-PC

H. Dream for NASA

Score: 1

CPU: 1s

Memory: 512MB

Shakil and **Fahim** are two close friends. From High-School life they wanted that, One day they will get job in **NASA**. Even to be a sweeper in **NASA** they always ready to join there. In December 2017 their dreams come true. They got a chance to give exam in **NASA** for their selections for the job.

They faced a great series

like: 25, 234, 828, 2220, 3948.....and they have to find the **N-th** number of the series. **Fahim** is good in number theory but **Shakil** is not so good. Now it is your task to help **Shakil** to find the **N-th** number from the above series so that they two can get the job.

Hint:

It is not a hint, it's the answer!

```
(2+3)*5    = 25
(7+11)*13  = 234
(17+19)*23 = 828
(29+31)*37 = 2220
And so on....
```

Input

Input starts with an integer **T** (≤ 750), denoting the number of test cases. Each test case will take a value **N** ($1 \leq N \leq 750$).

Output

For each test case, print the **N-th** value of the given series.

Sample

Input

Output

2

Case 1 :25

1

Case 2 :828

3

Problem Setter (H. Dream for NASA) :

Mohammad Shakil Mahmud

161-15-884

ACM Team

DIU CPC-PC