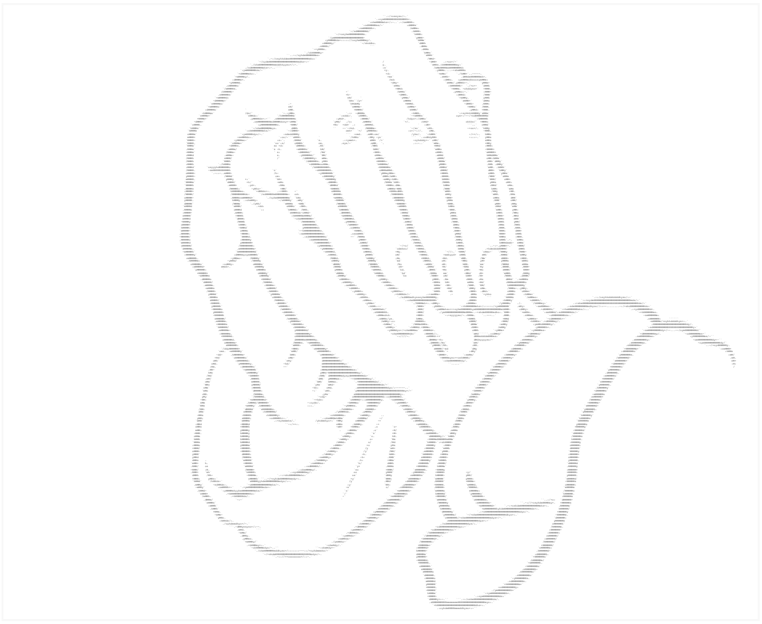
```
 .----------------.   .----------------.   .----------------.
| .--------------. || .--------------. || .--------------. |
| |    _____     | || |     __       | || |    _____     | |
| |   / ___ `.   | || |    /  |      | || |   / ___ `.   | |
| |  |_/___) |   | || |    `| |      | || |  |_/___) |   | |
| |   .'____.'   | || |     | |      | || |   .'____.'   | |
| |  / /____     | || |    _| |_     | || |  / /____     | |
| |  |_______|   | || |   |_____|    | || |  |_______|   | |
| |              | || |              | || |              | |
| '--------------' || '--------------' || '--------------' |
 '----------------'   '----------------'   '----------------'
```

```
     .d8888b.                888       888                     888              .d8888b.   .d8888b.   d888   .d8888b.
    d88P  Y88b               888   o   888                     888             d88P  Y88b d88P  Y88b d8888  d88P  Y88b
    888    888               888  d8b  888                     888                    888 888    888   888  888    888
    888         888  888     888 d888b 888  .d88b.   .d88b.   .d88888 .d8888b         .d88P 888    888   888  Y88b. d888
    888         888  888     888d88888b888 d88""88b d88""88b d88" 888 88K         .od888P"  888    888   888   "Y888P888
    888    888 888  888 888888 88888P Y88888 888  888 888  888 888  888 "Y8888b.   d88P"     888    888   888         888
    Y88b  d88P Y88b 888      8888P   Y8888 Y88..88P Y88..88P Y88b 888      X88   888"       Y88b  d88P   888  Y88b  d88P
     "Y8888P"   "Y88888      888P     Y888  "Y88P"   "Y88P"   "Y88888  88888P'   888888888   "Y8888P"  8888888 "Y8888P"
                    888
               Y8b d88P
                "Y88P"
 .d8888b.  888            d8b          888                                  .d8888b.                888                  888
d88P  Y88b 888            Y8P          888                                 d88P  Y88b               888                  888
888    888 888                         888                                 888    888               888                  888
888        88888b.  888d888 888 .d8888b  888888 88888b.d88b.   8888b.  .d8888b      888         .d88b.  88888b.  888888 .d88b.  .d8888b  888888
888        888 "88b 888P"   888 88K      888    888 "888 "88b     "88b 88K          888        d88""88b 888 "88b 888   d8P  Y8b 88K      888
888    888 888  888 888     888 "Y8888b. 888    888  888  888 .d888888 "Y8888b.     888    888 888  888 888  888 888   88888888 "Y8888b. 888
Y88b  d88P 888  888 888     888      X88 Y88b.  888  888  888 888  888      X88     Y88b  d88P Y88..88P 888  888 Y88b. Y8b.          X88 Y88b.
 "Y8888P"  888  888 888     888  88888P'  "Y888 888  888  888 "Y888888  88888P'      "Y8888P"   "Y88P"  888  888  "Y888 "Y8888   88888P'  "Y888
```



1. Problems may be solved in any order you choose. They do not have to be done in order from 1 to 18. Problems may or may not be in order by difficulty.
2. All problems are worth 40 points. Incorrect submissions will subtract 5 points from the points rewarded if the problem is submitted correctly. No points are subtracted if the problem is never submitted correctly.
3. There is no extraneous input. All input is exactly as specified in the problem.
4. Unless specified by the problem, integer inputs will not have leading zeroes. Your program should read to the end of file unless otherwise specified.
5. Your program should not print extraneous output. Follow the form exactly as given in the problem.
6. All programs must run in under 2 minutes.

Problem #	Problem Name	Solved?
1	AP/K Level Basket Weaving	
2	Yeet Theorem	
3	Movie Marathon	
4	Intramural Snowball Fight League	
5	Like, um, uh	
6	Portmanteau	
7	Trivia Day	
8	Ocho	
9	Messy Written	
10	There’s Always Tomorrow	
11	Unity Update	
12	Twelve Days of Christmas	
13	Naughty List	
14	E is Scary (Part 2)	
15	Reindeer Sandwiches	
16	Too Many Bens	
17	ChristMaths	
18	Bodies	

1. AP/K Level Basket Weaving

Program Name: Basket.java **Input File: None**

Sammy Klaws, Roll, Michelle, Grover, Eyeube, Brain, Moohair, and Stab were cruising in their mini-cooper rocking out to the Bad, the Ugly, and the Good soundtrack while mixing in some Old City Highway and Hole in One on their way to the big Eight Rivers State Basket Weaving Christmas contest. They were smart and pulled down the latest Disharmony update for their GSP to make sure they did not get lost.

Everything was going great until Stab's knee locked up from the impact after the mini jumped the rail road tracks. "Why did we let Brain drive?" said Michelle. Stab's knee began to fill up with like, um, uh, like um, uh, juice. Eyeube knew this could happen as it had happened to Grover last year on his way to the North Korea Science Fair. Luckily, Michelle brought along a copy of the latest Red Disconnected Magazine which had tips about general anatomy, hiding bodies, and reducing joint juice. Brain was really sorry and worried that Stab's knee might make them late. The quickest solution was to amputate so they took a few minutes to read the Red Disconnected Magazine. With a single swing of Roll's lightsaber, Stab became Stub. Brain just happened to have put a peg leg in the trunk of the mini before they left so they were all set. Stub was hopping along and getting ever so antsy about the contest. Sammy told Stub it would be fine and not to worry about running out of time making his basket. Sammy reminded Stub that Michelle told them before they left that they would have Math.E minutes to make baskets and that the provided basket plans from Eight Rivers were always as clear as the fluid in Grover's knee.

The CS gang drove up with time to spare, but got caught in a thunderstorm on the way into the building. Stub was limping like mad and suffering from DPS from past state basket weaving contest flashbacks. It was raining crazy hard, so Sammy Klaws had to unscrew Stub's peg leg as it was starting to rust. Unscrewing the peg leg was a no go. Luckily, once again, Roll pulled out his trusty light saber and went to work. Confused as usual, Roll chopped of Stub's good leg. Brain said he would just carry Stub, but Brain was about as coordinated as a baby reindeer and ate it on the wet floor. All soaking wet and filled with despair, they were just about to give up.

Suddenly, a Shrouded figure appeared. It was the ghost of contests past. He took the whole CS gang on a journey in time so they could see what things looked like in the past, present, and future. The experience was eye opening for the team. They saw trophies won and trophies lost, they saw friends made and friends lost, and they witnessed legacies old and many yet to come. As the journey came to an end, Eyeube, jolly and plump and filled with emotion, spoke up like a hyena, "From this day forward we will code with a purpose among us, attack the carcass and scream 212 whenever trophies they owes us (or during the Eight Rivers awards), but first Sammy Klaws must deliver some bling as all Stub wants for Christmas is his 2 front gold plated peg legs with matching grills!"

Input
None.

Output
Print out the basket as shown below.

Example Input File
```
None
```

Example Output to Screen
```
EEEEEEEEEEEEEEEEE
E     -----     E
E       X       E
E     -----     E
EEEEXEEEXEEEXEEEE
```

2. Yeet Theorem

Program Name: Yeet.java **Input File: yeet.dat**

Zeki is convinced that Yeet Theorem really works, and decides to dedicate a whole line of research behind this theorem. Yeet Theorem states that to raise a number `n` to the power `p`, you can "yeet" the power in front of the number and concatenate them to get your resultant number. However, Zeki is really stupid and needs your help to both determine the result using Yeet Theorem and find out if it equals the real value of `n` raised to `p`.

Input

The first line of input will contain a single integer `t`, which indicates the number of test cases to follow. For each test case, you are given `n` and `p` (`0 ≤ n, p ≤ 15`).

Output

Return the value after yeeting the power, then if the value equals `n^p`, print "`Yeet`". Otherwise, print "`Get Yate`".

Example Input File

```
3
5 2
3 3
15 0
```

Example Output to Screen

```
25 Yeet
33 Get Yate
15 Get Yate
```

3. Movie Marathon

Program Name: Movie.java **Input File: None**

You are about to begin the annual Christmas Movie Marathon – 212 Christmas movies in the span of 25 days, giving you approximately 2 and a half hours for each movie. You've already made important preparations for your unnecessarily long movie marathon, but at 11:50 PM on November 30th, you realize you've forgotten one of the most important items: the Christmas tree. You believe in the power of the extra degree, and the Christmas tree is necessary to demonstrate your commitment. Time is racing against you… can you get yourself a tree?

Input
None.

Output
Print out this picture of a Christmas tree.

Example Input File
```
None
```

Example Output to Screen
```
       *
      /|\
     // \\
    //   \\
   //  o  \\
  //     o \\
 //  o      \\
//___________\\
      |||
      |||
      |||
      |||
      ---
```

4. Intramural Snowball Fight League

Program Name: ISFL.java **Input File: isfl.dat**

Every year, the Cypress Woods Computer Science Club holds an intramural snowball fight tournament. Because nobody likes you, you've been delegated the job of organizing the team signups and logistics. According to the National Snowball Fight League Rules and Regulations, a team is a group of at most 3 people, although it can contain less than 3. Given a list of raw data consisting of people and a team they want to be on, sort them into respective teams and print them out in a more friendly format. Team membership is given on a first come, first serve basis. If somebody wants to join a team that already has 3 people, they will not be able to join.

Input

The first line of input will contain a single integer `n` that indicates how many test cases will follow. The first line of each test case will be a single integer `r` that indicates the number of people that signed up. Each of the following lines consists of the person's name, and, if the person has a preferred team, then a dash `-`, followed by their preferred team's name. If a person just wants to have fun and does not have a preferred team, they will be placed with other team-less people and people who could not get into their preferred team.

Note: Two people may have the exact same name.

Output

Output each team's name followed by the members of the team, both in natural order (The way Java normally sorts strings). Any people without a team will be placed on a team named `Untitled Team X`, where `X` is a number that starts at 1 and increments for each untitled team that is created. The untitled teams will be sorted together with the titled teams in alphabetical order. Separate each team with a newline, and after each test case print `-----` (5 dashes).

Example Input File

```
3
8
Alex-Team A
Mihir-Team A
Zeki-Team B
Ashay-Team A
Sidh-Team A
Ronak-Team B
Tristan
Ral
6
ASDF-GHJK
QWERTY
2539
J-J
foo
bar
9
John Doe-Cool people
Jane Smith-Cool people
john doe-Cool people
jane smith-cool People
cool Person-cool People
Me-Cool people
You-Uncool people
Untitled
Untilted
```

Example Output to Screen
```
Team A
Alex
Ashay
Mihir

Team B
Ronak
Zeki

Untitled Team 1
Ral
Sidh
Tristan
-----
GHJK
ASDF

J
J

Untitled Team 1
2539
QWERTY
foo

Untitled Team 2
bar
-----
Cool people
Jane Smith
John Doe
john doe

Uncool people
You

Untitled Team 1
Me
Untilted
Untitled

cool People
cool Person
jane smith
-----
```

5. Like, um, uh

Program Name: Like.java **Input File: like.dat**

Alex stutters when he talks too much, and fills up the empty space with words such as `like, um,` and `uh`. Mr. A wants to help him improve his soft skills by overcoming his speech problem. Write a program to remove all filler words from a sentence. The boundaries of each filler word will be demarcated by a space, punctuation, the beginning of the line, or the end of the line. Do not remove a filler word if it appears as part of another word. For example, do not remove words such as `"likely"`.

Input
The first line of input will contain a single integer `n` that indicates how many test cases to follow. Each test case will contain a sentence on one line.

Output
For each sentence, output the sentence without any filler words. The only filler words are `like, um,` and `uh`.

Example Input File
```
7
What if like we uh wrote more contest problems about like stupid stuff
Your thing is like not working
He um didn't like do that
Can you like please help me solve this foobar problem
What about like the equation for the uh um left branches
I was made in his likeness
First in, first out
```

Example Output to Screen
```
What if we wrote more contest problems about stupid stuff
Your thing is not working
He didn't do that
Can you please help me solve this foobar problem
What about the equation for the left branches
I was made in his likeness
First in, first out
```

6. Portmanteau

Program Name: Portmanteau.java **Input File: portmanteau.dat**

Alex likes to use complicated words because they make him sound more photosynthesis. This week he learned from TIL on Reddit about portmanteaus. A portmanteau is a combination of two words into a single word, where continuous, nonzero length portions of both words are present in the combination. Examples include motel (motor + hotel), brunch (breakfast + lunch), and hangry (hungry + angry). Given a portmanteau and two words, determine if it is possible to form the portmanteau with said words. A portmanteau is said to be formable if a continuous stream of characters from the beginning of one word combined with a continuous stream of characters from the end of the other word makes the portmanteau. The streams must both be of nonzero length.

Input
The first line of input will contain a single integer `n` that indicates how many test cases to follow. Each test case will contain the portmanteau, then two words.

Output
If it is possible to create the portmanteau from the words, output `"YES"`. Otherwise, output `"NO"`.

Example Input File
```
4
motel motor hotel
brunch lunch breakfast
jangry hungry angry
whism antidisestablishmentarianism what
```

Example Output to Screen
```
YES
YES
NO
YES
```

7. Trivia Day

Program Name: Trivia.java **Input File: trivia.dat**

To prepare for the Eight Rivers Computer Science Competition, Jonathan decided to study up on some obscure Java trivia for the written test. After getting a couple of 240s, he was ready to share his program with other students and make them fight to the death over Java trivia. However, even after all that studying, he couldn't figure out how to compare the players' answers for each question to the answer key. So, he's forced to turn to you. Can you help Jonathan figure out how to analyze the answers and print out the winner for each trivia round?

Input

The first line will have an integer `n`, the number of test cases to follow. Each test case consists of 3 lines. The first line will contain the names of the two players, separated by a space. The second line will contain the proper answers to each question, or the answer key, each separated by a space. The last line will contain the pairs of answers that each player submitted for each question, with the first player's answer being first in each pair.

Output

The output will be a single line that says who won the round in the format "`[Winner] has won this round!`", where `[Winner]` is replaced by the name of the winner. If the round ends as a tie, output "`[player1] and [player2] are tied this round!`", where `[player1]` is replaced by the name of the first player in the test case and `[player2]` is replaced by the name of the first player in the test case.

Example Input File

```
2
JohnChris ChrisJohn
Five Gray Green Orange
Five Blue Blue Green Orange Green Orange Yellow
Marie Claire
Five Four
Five Four Five Four
```

Example Output to Screen

```
JohnChris has won this round!
Marie and Claire are tied this round!
```

8. Ocho

Program Name: Ocho.java **Input File: ocho.dat**

After demonstrating your soft skills at the job interview, you've landed a job at Nine Oceans, a prestigious software development company. For some weird reason, your first task is to convert numbers written in Spanish and compare them to other numbers. While this is simple enough, your boss graduated from 8 Rivers Middle School and enforces a policy requiring 8 to be greater than everything (except for itself, in which it is equal to 8). Write a program to do your job for you.

Input

The first number `t` indicates the number of test cases that follow. For each test case, there are two all uppercase words in Spanish. Spanish numbers are as follows:

- 0 = CERO
- 1 = UNO
- 2 = DOS
- 3 = TRES
- 4 = CUATRO
- 5 = CINCO
- 6 = SEIS
- 7 = SIETE
- 8 = OCHO
- 9 = NUEVE
- 10 = DIEZ

Output

For each test case, output the first number followed by a greater than, equal to, or less than sign followed by the second number.

Example Input File

```
4
UNO DOS
TRES UNO
DIEZ CERO
DIEZ OCHO
```

Example Output to Screen

```
1 < 2
3 > 1
10 > 0
10 < 8
```

9. Messy Written

Program Name: Written.java **Input File: written.dat**

Written tests are hard to grade, and sometimes, something goes wrong. At the Eight Rivers Middle School Computer Science Competition, Ral received a 236 on the written test! The way written tests are scored is 6 points for every question correct, no points awarded for skipped questions, and -2 points for incorrect answers. There are always 40 questions on a written test, so some scores shouldn't be possible. Write a program to determine whether a given written score is possible.

Input

The first line of input is `n`, the number of data sets to follow. The next `n` lines will be an integer within the range `-80` to `240`, inclusive.

Output

For each test case, print "`Possible`" if the written score is possible or "`Impossible`" if the written score is impossible.

Example Input File

```
5
118
101
236
-12
86
```

Example Output to Screen

```
Possible
Impossible
Impossible
Possible
Possible
```

10. There’s Always Tomorrow

Program Name: Tomorrow.java **Input File: tomorrow.dat**

After having his business idea brutally rejected by Mark Cuban, Lil’ Willy Brazofuerte, world-renowned rapper, is feeling a little upset. As his best friend, you want to help him cope with his struggles, so you tell him that “there’s always tomorrow”. “But what is tomorrow?” Lil’ Willy B. asks you. Now, your task is to tell him.

Input
The input will begin with a single integer, `t`, denoting the number of test cases to follow. Each test case will contain a date formatted as MM DD YYYY.

Output
Output the date of exactly one day after the date given, taking leap years into account. Please output each date in the MM DD YYYY format on its own line.

Example Input File
```
3
12 31 6969
12 14 2019
02 28 2004
```

Example Output to Screen
```
01 01 6970
12 15 2019
02 29 2004
```

11. Unity Update

Program Name: Unity.java   Input File: unity.dat

The season of Christmas is all around, and it is a merry jolly time for all students and teachers alike. During this most generous of seasons, the 7th period computer science class is trying to work on their soft skills by collaboratively singing a Christmas carol one line at a time. However, some students who don't understand when to ask a personal question interrupt this fun holiday activity. If a student named Maxwell asks about a Unity update when the Christmas carol is being painstakingly sung, the whole song is a failure and the whole class gets an F and a meter stick to their faces. If a student other than Maxwell asks about a Unity update, the song goes on because they are not a repeat offender. Successfully singing this Christmas carol consists of not being interrupted by Maxwell asking about a Unity Update, resulting in the class getting an A.

Input

The first line of input will contain a single integer `n` that indicates the number of lines of the Christmas carol. Each line will consist of a name followed by a colon and a space, and the line of the Christmas carol that they sung. If a line matches "`Maxwell: Regarding the Unity update...`", the class has failed.

Output

If the students were able to successfully sing the Christmas carol without being interrupted by Maxwell's question about a Unity update, print "`Song passed! Everyone gets an A for Christmas.`" If the students were unable to sing the song successfully, print "`Song failed. Everyone gets an F in their stocking.`"

Example Input File

```
17
Alex: Dashing through the snow
Mihir: On a one horse open sleigh
Ricky: O'er the fields we go,
Maxwell: Laughing all the way
Zeki: Bells on bob tail ring,
Tristan: making spirits bright
Eyeoosh: What fun it is to laugh and sing
SkeletonKing: A sleighing song tonight
Ral: Oh, jingle bells, jingle bells
Steben: Jingle all the way
Maxwell: Regarding the Unity update...
Jah: Oh, what fun it is to ride
TTNorth: In a one horse open sleigh
TTSouth: Jingle bells, jingle bells
Chang: Jingle all the way
Glover: Oh, what fun it is to ride
Roneck: In a one horse open sleigh
```

Example Output to Screen

```
Song failed. Everyone gets an F in their stocking.
```

12. Twelve Days of Christmas

Program Name: Twelve.java **Input File: twelve.dat**

After some coercive action, you have finally been able to complete the singing of several Christmas carols without interruption by a certain student. However, a new problem has arisen – some students have not studied their lines ahead of time for the next carol, the Twelve Days of Christmas. However, being the good CS student that you are, you realize that the lyrical structure of the Twelve Days of Christmas is very formulaic, so you decide to write a program to help everybody remember their lines. Given a list of items that your true love has given to you, print each one out in a way that will tell each student what to sing.

Input

The first line of input will contain a single integer `n` that indicates how many test cases to follow. The next `n` lines will each consist of a gift given by your true love.

Output

For each test case, print "`The next gift is [gift].`", where `[gift]` is replaced by the name given in the test case.

Example Input File

```
4
four calling birds
three french hens
two turtle doves
a partridge in a pear tree
```

Example Output to Screen

```
The next gift is four calling birds.
The next gift is three french hens.
The next gift is two turtle doves.
The next gift is a partridge in a pear tree.
```

13. Naughty List

Program Name: Naughty.java Input File: naughty.dat

Sammy Klaws, the eternal spirit of Christmas, has returned to continue the annual tradition of giving the good students their presents and the bad students their coal. Usually, this would not be a difficult task, since Sammy does the same thing every year and has a very efficient system in place. However, Sammy practiced a little too much computer science this year, and his vision has gotten a lot worse to the point where he sometimes cannot distinguish similar-looking names. This is a problem, because a lot of kids on his naughty list have similar names to the kids on his nice list, so he's enlisted you to write a program to see if the names are actually right. Given the correct name and a list of other names that Sammy thinks are the same but may be slightly different, find the name that has the most correct characters in the same spot of the correct name. If no character is correctly placed, a failed message will be printed. If more than one name has the same number of characters in their correct places, the name that appeared first will be printed. For each test case, print out the most similar name, followed by an accuracy percentage that represents the percentage of letters that were in the correct position using this equation:

$$Accuracy\ \% = \left(\frac{Amount\ of\ Correct\ Letters}{Total\ Number\ of\ Letters}\right) * 100$$

The length of each string will never exceed 100.

Input
The first line will contain integer `n`, which represents the amount of test cases to follow. The next `n` datasets will each start with integer `s`, followed by the correct string, and `s-1` lines, each with a random string of the same length as the original string.

Output
Output the string that has the greatest number of corresponding letters, and on the next line, print "`Accuracy Percentage: `", followed by the accuracy percentage calculated using the formula aforementioned and rounded to a whole number. If no strings were found to have even one character in the corresponding place, print "`FAILED`" on a new line instead of the corresponding string and for the accuracy percentage, print "`NaN`" instead of a percentage.

Example Input File
```
2
4
wildcat
wdatlci
awtcdil
wiadclt
5
squid
qdisu
qsidu
diqus
usqdi
```

Example Output to Screen
```
wiadclt
Accuracy Percentage: 71%

FAILED
Accuracy Percentage: NaN
```

14. E is Scary (Part 2)

Program Name: E.java **Input File: e.dat**

Sammy Klaws has decided to work on overcoming his fears. As we all know, Sammy is notoriously afraid of two things: Shroud, and the mathematical constant e (2.71). The latter fear was later expanded to fear of any and all mathematical constants after he discovered that more than one existed. Sammy plans to overcome his fear of mathematical constants by memorizing them. However, being a timeless undead Christmas spirit has taken its toll on him, and his memory is quite bad, so his attempts at estimating constants are often quite off. Sammy wants to test his accuracy in hopes that it will improve, and he needs your help doing this. Given three of his guesses and the real value of the constant he is trying to guess, output the accuracy of his guesses in the form of a percentage.

Input

The first line of input will contain an integer `n` which is the number of test cases. The first three numbers in any following line are the three guesses. The next value is the actual value of the constant.

Output

For each test case, output the percent error between the three guesses and the actual value of the constant, formatted as a percentage with two decimal places. The equation for percent error is as follows:

$$\%\,Error = \left|\frac{(Average\ of\ three\ guesses) - (Actual\ value\ of\ constant)}{Actual\ value\ of\ constant}\right| * 100$$

Example Input File

```
4
110.89 111.61 111.98 129.30
209.69 210.68 212.69 257.24
188.01 187.07 188.54 234.01
1106.79 1112.62 1101.08 1291.01
```

Example Output to Screen

```
13.77%
17.97%
19.72%
14.27%
```

15. Reindeer Sandwiches

Program Name: Sandwiches.java **Input File: sandwiches.dat**

Sammy Klaws always keeps his reindeer fed. After all, to drive his operations, his reindeer have to be healthy and fit. The reindeer are very picky and only eat handmade sandwiches. However, Sammy has recently become more and more busy with computer science and is looking at outsourcing the job of feeding his reindeer, and he has outsourced it to you because it means he won't have to pay taxes. To make a sandwich, you need bread, meat, and cheese. You went to the grocery store earlier this week and made a log of what items you bought as you were putting them in your refrigerator. Being an organized person, you separated each type of food into different drawers. However, this also means the first item you wrote down is at the very back of your refrigerator, and you don't want to just go off the list and dig out everything from the back. Instead, you'll start taking from the front of each drawer, meaning the last item on your list will be the first one taken out. And because this is very tedious (and you're pretty lazy), you've decided to write a program to create sandwich combinations for the reindeer to eat. Items will not be put back into the refrigerator once they have been eaten for obvious reasons. If any of the three items are missing, then you cannot make a sandwich.

Input

The first line of input will contain a single integer `n` that indicates the number of things you bought. The next `n` lines will contain a log of all the items you bought, with the name, a dash, and then the type of food it is – `bread`, `meat`, or `cheese`. These lines are in the order you put the food into the refrigerator.

Output

For each possible sandwich combination, output the sandwiches in the order they will be made, and the sandwiches' ingredients in the format `bread, meat, cheese`.

Example Input File

```
10
Whole wheat-bread
White-bread
Turkey-meat
American-cheese
Swiss-cheese
Ham-meat
Cheddar-cheese
Chicken-meat
Hamburger buns-bread
Patty-meat
```

Example Output to Screen

```
Hamburger buns, Patty, Cheddar
White, Chicken, Swiss
Whole wheat, Ham, American
```

16. Too Many Bens

Program Name: Bens.java **Input File: bens.dat**

Sammy Klaws is trying to deliver presents to the CS kids, but there are too many Bens. Being human, Sammy Klaws cannot hope to deliver a high-quality present to every Ben. Instead, he must prioritize the bens first based on their grade in AP/K Level Basket Weaving, then their vocal range, and finally the length of their femur. The Bens will get better presents based on the hierarchy below:

- The higher their grade in AP basket weaving, the better the present
- If their grades are equal, then the larger their vocal range, the better present
- If both their grades and vocal ranges are equal, then the longer their femur, the better the present

Input

The first number is the total amount of cases. The next number, `x`, is the number of Bens in that sorting case. The next x lines will contain a string representing their name, a double representing their grade in AP basket weaving, 2 integers representing the lowest and the highest frequencies of their vocal range, where the difference is the range, and finally a double representing their femur length in inches.

Output

The output should contain all Bens sorted from worst to best present, based on the hierarchy above separated by commas and a space.

Example Input File

```
2
3
Ben Armstrong 100.0 27 100 57.5
Ben Yonas 98.0 7 89 56.8
Ben Gonzales 98.00 0 56 57
6
Ben Armstrong 100.1 27 100 57.5
Ben Yonas 98.0 7 89 56.8
Ben Gonzales 78 0 56 57
Ben Davis 78 8 9 35
Ben Stiller 78 44 55 14
Ben Franklin 100 44 45 5000000
```

Example Output to Screen

```
Ben Gonzales, Ben Yonas, Ben Armstrong
Ben Davis, Ben Stiller, Ben Gonzales, Ben Yonas, Ben Franklin, Ben Armstrong
```

17. ChristMaths

Program Name: ChristMaths.java **Input File: christmaths.dat**

Sammy Klaws is finally finished giving all his presents to the good children, and he's ready to call it a night. Sammy is feeling extra generous this Christmas, however, and decides to give all the children on the naughty list a second chance. He wants to see if the children have learned anything in their math classes, so he decides to give them basic arithmetic problems. Unfortunately, it turns out that Sammy dropped out of school a little too early in order to pursue the arts of gift giving and computer science, so he has no concept of order of operations. Instead, Sammy does each operation from left to right. Given a mathematical expression and a child's answer to the expression, determine whether Sammy will give them a present or not. Sammy will give the child a present if and only if the child's answer to the expression is equal to what Sammy would have gotten. (Note: Sammy can use all 4 basic operators: `+, -, *, /.` All division will be integer division.) All numbers in each mathematical expression will be single digits, although the answer may not be a single digit.

Input

The first line of input contains 1 integer `n,` the number of test cases to follow. The next `n` lines of input contain a mathematical expression and the child's answer for the expression.

Output

Determine whether Santa will give the child a present. If Santa is willing to give the child a present, print out `"Present for You",` and if he will not give the child a present, print out `"Coal for You".`

Example Input File

```
3
3+5*4-2 30
4-6*2+2 -6
6/2+5-1 7
```

Example Output to Screen

```
Present for You
Coal for You
Present for You
```

18. Bodies

Program Name: Bodies.java **Input File: bodies.dat**

Mr. A just has killed somebody. He has tasked his butler, Tristan Weaselpopsicle, to dispose of the body at night. Mr. A has already identified possible sites to dispose of the body, but there are police officers who roam around, so Butler Weaselpopsicle must by very stealthy. Write a program to see if Tristan can dispose of the body without being caught by the police. Tristan can move in the four cardinal directions (north, west, south, east), but not diagonally.

Input

The first line represents the number of data sets to follow. In each data set the first line contains the rows and columns of the map, respectively. The next `r` lines will contain the map. The `T` represents where Tristan starts. There can be 1 to 3 `S`'s, which represents possible sites to dispose of the body. There can be 0 to 3 `P`'s, which represent police officers. Tristan can travel in any square except one space around a police officer, including diagonals, or a wall, denoted by a `#`. You can assume Tristan's starting position won't be right next to a police officer, but a possible site could be right next to a police officer, making it automatically inaccessible.

Output

Always output "`Bravo Six Going Dark...`" to signify that Tristan has started his night time mission. If it is possible for Tristan to dispose of the body without getting caught, output "`at the end of the tunnel is a light`" on the same line. Otherwise output "`Mission Failed. We'll get em next time.`"

Example Input File

```
2
6 7
.S.####
.#P..##
T.##P##
...#..S
#....##
#####S.
5 5
.....
....S
..P.#
..#.#
T...#
```

Example Output to Screen

```
Bravo Six Going Dark... Mission Failed. We'll get em next time.
Bravo Six Going Dark... at the end of the tunnel is a light.
```