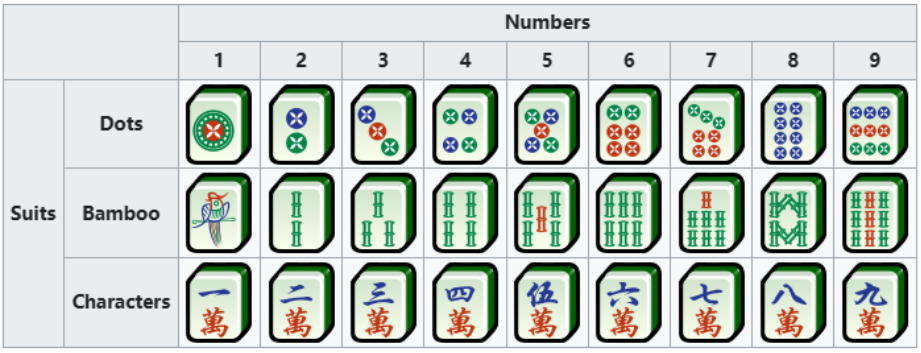
Magic Mahjong

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	1024 megabytes

Starlight Glimmer is working on Magic Mahjong with her friends.

There are two types of Mahjong tiles, Suited and Honors, of which:

Suited tiles are divided into two suits and each are numbered from 1 to 9. The suits are bamboos, dots, and characters. There are four identical copies of each suited tile totaling 108 tiles.



For Honors, there are two different sets of honors tiles: winds and dragons. The winds are east, south, west, and north, beginning with east. The dragons are red, green, and white.

Now, we denote dots by numbers as $P = \{1p, 2p, 3p, 4p, 5p, 6p, 7p, 8p, 9p\}$, and similarly, bamboos as $S = \{1s, 2s, 3s, 4s, 5s, 6s, 7s, 8s, 9s\}$, and characters as $M = \{1m, 2m, 3m, 4m, 5m, 6m, 7m, 8m, 9m\}$. For Honors, it is noted as $Z = \{1z, 2z, 3z, 4z, 5z, 6z, 7z\}$ in the order of East, South, West, North, White, Green, Red.

In particular, we call $T = \{1p, 9p, 1s, 9s, 1m, 9m\}$ the terminal tile.

There are three types of Wins in Magic Mahjong, and Starlight Glimmer wants to explore just two of them today, both of which require 14 tiles to reach the Win condition:

- `Thirteen Orphans`, which is a limit hand that consists of **all terminal and honor tile**. In other words, the Win condition must have each 13 terminal and honor tile and attach any card belonging to the first 13 tile. Formally, it must be a muiltset $T \cup Z \cup \{x | x \in T \cup Z\}$.

An example of Thirteen Orphans which has two $1p$.

Note that the set is unordered.

- `7 Pairs`, which consists of only 7 **different** tiles and each tile must appear twice. Formally, consider a set L of size 7 whose element is in Mahjong tiles, the muiltset $L \cup L$ is a legal `7 Pairs`.

Now Starlight Glimmer is given a number of her starting 14 cards, and she wonders if a Win condition has been reached as above.

Input

There are multiple test cases. The first line contains an integer T ($1 \leq T \leq 1000$) indicating the number of test cases, for each test case:

A string of length 28 spliced directly from Starlight Glimmer's starting 14 cards (**NOT** separated by spaces).

Output

For each test case, print a single string, for `Thirteen Orphans` Win condition, print "Thirteen Orphans", for `7 Pairs` Win condition, print "7 Pairs", otherwise, print "Otherwise".

Example

standard input	standard output
6 1s9s1p9p1m9m1z2z3z4z5z6z7z9s 1s9s1p9p1s9s1p9p2s2p2s2p3s3s 1s1s1s2s3s4s5s6s7s8s9s9s9s5s 9s1p1s1m1z7z6z5z4z9p9m2z3z2z 1p2p3p1p2p3p7s8s9s7s8s9s1z1z 1p1p1p1p2p2p2p2p3p3p3p3p4p4p	Thirteen Orphans 7 Pairs Otherwise Thirteen Orphans 7 Pairs Otherwise

Note

Here are the cards in the sample:

1s9s1p9p1m9m1z2z3z4z5z6z7z9s

1s9s1p9p1s9s1p9p2s2p2s2p3s3s

1s1s1s2s3s4s5s6s7s8s9s9s9s5s

9s1p1s1m1z7z6z5z4z9p9m2z3z2z

1p2p3p1p2p3p7s8s9s7s8s9s1z1z

1p1p1p1p2p2p2p2p3p3p3p3p4p4p