C++ provides the possibility of creating any class we need. A simple example is to represent the card in a deck by a class **PokerCard** with two members **face** and **suit**, where the face is an integer value between 0 to 12 (standing for Ace, Two, Three, …, Ten, Jack, Queen, and King), and suit is also an integer value between 0 to 3 (denoting Spades, Hearts, Diamonds, and Clubs). To show the card, the class must provide a **show()** method to translate the integer values to a meaningful string. Your goal is to write a program translate each pair of two integer values to a string representing the card's face value and suit color.

Note that you need to use **static arrays of strings** to store the possible face values and suit colors for encapsulation and saving memory. The declaration of a static member is to add the keyword static before the data type of a class member. The initialization of a static data member can be put at the beginning of your source code file. For example, a static member length of type int can be initialized as:

int SomeClass::length = 10;

To prevent the invalid input, please **throw an exception** when the face value or suit color of a card is invalid. If the face value is invalid, throw an exception of **invalid argument** with "Invalid face value". If the suit value us invalid, throw an exception of invalid argument with "Invalid suit color". Check the face value first then the suit value.

Requirement: Use the sample main function to complete your program. Prepare appropriate constructor for your class, and encapsulate the method and possible face values and suit colors in your class in two files: the class header file (PokerCard.h), and the class source code file (PokerCard.cpp).

Prohibited: Use C-style input/output.

Input

Each case contains two integers in a single line. The input ends with -1.

Output

For each case, output the string representing the card with the format: F of S, where F and S are the face value and suit color of the card, respectively.

Sample Input

```
0 0
10 1
11 2
12 3
0 4
13 0
13 4
-1
```

Sample Output

```
Ace of Spades
Jack of Hearts
Queen of Diamonds
King of Clubs
Invalid suit color
Invalid face value
Invalid face value
```