You are watching a volleyball tournament, but you missed the beginning of the very first game of your favorite team. Now you're curious about how the coach arranged the players on the field at the start of the game.

The team you favor plays in the following formation:

0 3 0

4 0 2

0 6 0

5 0 1

where positive numbers represent positions occupied by players. After the team gains the serve, its members rotate one position in a clockwise direction, so the player in position 2moves to position 1, the player in position 3moves to position 2, and so on, with the player in position 1 moving to position 6.

Here's how the players change their positions:

Given the current formation of the team and the number of times k it gained the serve, find the initial position of each player in it.

**Example**

* For
* formation = [["empty", "Player5", "empty"],
* ["Player4", "empty", "Player2"],
* ["empty", "Player3", "empty"],
* ["Player6", "empty", "Player1"]]

and k = 2, the output should be

volleyballPositions(formation, k) = [

["empty", "Player1", "empty"],

["Player2", "empty", "Player3"],

["empty", "Player4", "empty"],

["Player5", "empty", "Player6"]

]

* For
* formation = [["empty", "Alice", "empty"],
* ["Bob", "empty", "Charlie"],
* ["empty", "Dave", "empty"],
* ["Eve", "empty", "Frank"]]

and k = 6, the output should be

volleyballPositions(formation, k) = [

["empty", "Alice", "empty"],

["Bob", "empty", "Charlie"],

["empty", "Dave", "empty"],

["Eve", "empty", "Frank"]

]

**Input/Output**

* **[time limit] 3000ms (cs)**
* **[input] array.array.string formation**

A 4 × 3 array of strings representing names of the players in the positions corresponding to those in the schema above.  
It is guaranteed that for each empty position the corresponding element of formation is "empty".  
It is also guaranteed that there is no player called "empty" in the team.

* **[input] integer k**

The number of times the team gained the serve.

*Constraints:*  
0 ≤ k ≤ 109.

* **[output] array.array.string**

Team arrangement at the start of the game.

<https://codefights.com/arcade/code-arcade/list-backwoods/fmYdsYcGfaTu4yTQt>

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

namespace ConsoleApplication1

{

class Program

{

static string[][] volleyballPositions(string[][] formation, int k)

{

int r = k % 6;

string[][] res = new string[4][];

for (int i = 0; i < 4; i++)

{

res[i] = new string[3];

for (int j = 0; j < 3; j++)

res[i][j] = formation[i][j];

}

for (int i = 0; i < r; i++)

{

res = rotar(formation);

Array.Copy(res, formation, res.Length);

}

return res;

}

static string[][] rotar(string[][] form) //, int f1, int c1, int f2, int c2)

{

string[][] res = new string[4][];

for (int i = 0; i < 4; i++)

{

res[i] = new string[3];

for (int j = 0; j < 3; j++)

res[i][j] = form[i][j];

}

res[3][2] = form[2][1];

res[1][2] = form[3][2];

res[0][1] = form[1][2];

res[1][0] = form[0][1];

res[3][0] = form[1][0];

res[2][1] = form[3][0];

return res;

}

static void Main(string[] args)

{

//for (int i = 1; i < 1000; i++)

//{

// Console.WriteLine(i % 6);

//}

//string[][] formation =

//{

// new string[] {"empty", "Player5", "empty"},

// new string[] {"Player4", "empty", "Player2"},

// new string[]{"empty", "Player3", "empty"},

// new string[] {"Player6", "empty", "Player1"}

//};

//string[][] res = volleyballPositions(formation, 2);

string[][] formation=

{new string[]{"empty","Alice","empty"},

new string[]{"Bob","empty","Charlie"},

new string[]{"empty","Dave","empty"},

new string[]{"Eve","empty","Frank"}};

int k= 6;

string[][] res = volleyballPositions(formation, k);

for (int i = 0; i < 4; i++)

{

for (int j = 0; j < 3; j++)

{

Console.Write(res[i][j] + " ");

}

Console.WriteLine();

}

Console.ReadLine();

}

}

}