

```

5 0 0 -2 0
6 4 2
7 3 1
8 -1 0
9 5 0
10 0 2
11
12 Output :
13 Starting position for each column of B:
14 0 3
15 A * B:
16 3 2 5
17 0 0 -3
18 0 1 2
19 1 0 14
20 1 1 8
21 2 0 -10

```

2. KMP algorithm

Please implement the failure function of the KMP algorithm to preprocess a given pattern P, and use this algorithm to compare the string T and pattern P, which are stored in a separate 1-D array (index starts with 0). You should print out the result of failure function F first. If the pattern P is found in string T, you should output (Yes,x,y), where x and y represent the starting and ending char address in String T. If pattern P cannot be found in string T, you should output (Not found).

Test Case

Please test your program with Input, and then check the answers with Output.

Listing 2 : KMP algorithm

```

1 Input :
2 T : A A B Z A B Z A B C Z
3 P : A B Z A B C
4
5 Output :
6 F : -1 -1 -1 0 1 -1
7 Yes,4,9

```