#include<stdio.h>

#include<ctype.h>

void FIRST(char );

int count,n=0;

char prodn[10][10],first[10];

int main()

{

int i,choice;

char c,ch;

printf("How many productions:");

scanf("%d",&count);

printf("Enter %d productions epsilon= $ :\n\n",count);

for(i=0;i<count;i++)

scanf("%s%c",prodn[i],&ch);

do

{

n=0;

printf("Element :");

scanf("%c",&c);

FIRST(c);

printf("\n FIRST(%c)= { ",c);

for(i=0;i<n;i++)

printf("%c ",first[i]);

printf("}\n");

printf("press 1 to continue : ");

scanf("%d%c",&choice,&ch);

}

while(choice==1);

}

void FIRST(char c)

{

int j;

if(!(isupper(c)))

first[n++]=c;

for(j=0;j<count;j++)

{

if(prodn[j][0]==c)

{

if(prodn[j][2]=='$')

first[n++]='$';

else if(islower(prodn[j][2]))

first[n++]=prodn[j][2];

else

FIRST(prodn[j][2]);

}

}

}

