

## Program

```
#include<stdio.h>
#include<conio.h>
#include<string.h>
#include<ctype.h>

int main()
{
    int x;
    printf("Enter number of productions:");
    scanf("%d",&x);
    while(x>0)
    {
        char c;
        int n=1,i=0,j=0,k=0;
        char a[10][10],f[10];

        printf("\nEnter the production:\n");
        for(i=0;i<n;i++)
            scanf("%s",a[i]);

        c=a[0][0];
        if(a[0][2] == c)
        {
            printf("Left recursion found: \n");
            printf("%c' -> ",c);
            for(k=3;k<strlen(a[0]) && a[0][k] != '|';k++)
            {
                printf("%c",a[0][k]);
            }
            printf("%c' | e",c);
            n=k; i=0;
            printf("\n%c ->",c);
            for(k=n+1; k<strlen(a[0]) && a[0][k]!='\0'; k++)
            {
                printf("%c",a[0][k]);
            }
            printf("%c'",c);
        }
        else{
            printf("No left recursion!!");
        }
        x--;
    }

    return 0;
}
```

## Output

```
PS C:\Users\shubh\Documents\Shubhankita\Sem  
ftRec } ; if ($?) { .\exp4leftRec }  
Enter number of productions:2  
  
Enter the production:  
E=E+T|T  
Left recursion found:  
E' -> +TE' | e  
E ->TE'  
Enter the production:  
T=id  
No left recursion!!
```