1. 假设以不带头结点的循环链表表示队列，并且只设一个指针指向队尾结点，  
   但不设头指针。试设计相应的入队和出队的算法。

.code

#include <stdio.h>  
#include <conio.h>  
#include <stdlib.h>  
#define OK 1  
#define ERROR 0  
#define OVERFLOW 0  
typedef struct N0de  
{int data;  
 struct N0de \*next;  
}N0de,\*QueuePtr;  
  
 typedef struct   
 {QueuePtr rear;  
 }LinkQueue;  
  
 int InintQueue(LinkQueue &Q)  
 { Q.rear=(QueuePtr)malloc(sizeof(N0de));  
 if(!Q.rear) return(OVERFLOW);  
 Q.rear->next=Q.rear;  
 return OK;  
 }  
  
 int EnQueue(LinkQueue &Q,int e)  
 {QueuePtr p;  
 p=(QueuePtr)malloc(sizeof(N0de));  
 p->data=e;  
 p->next=Q.rear->next;  
 Q.rear->next=p;  
 Q.rear=p;  
 return OK;  
 }  
  
 int DeQueue(LinkQueue &Q,int &e)   
 { QueuePtr p;  
 if(Q.rear->next==Q.rear)  
 return 0;  
 p=Q.rear->next->next;  
 e=p->data;  
 Q.rear->next->next=p->next;  
 if(Q.rear==p)  
 {  
 Q.rear->next=Q.rear->next->next;  
 Q.rear=Q.rear->next;  
 }  
 free(p);  
 return OK;  
 }  
  
 void main()  
 {LinkQueue Q;  
 int i,e,n;  
 InintQueue(Q);  
 printf("input the number of the data:");  
 scanf("%d",&n);  
 for(i=0;i<n;i++)  
 {printf("enter the queue:");  
 scanf("%d",&e);  
 EnQueue(Q,e);  
 }  
 printf("input the number of the datas to out:");  
 scanf("%d",&n);  
 for(i=0;i<n;i++)  
 {  
 printf("output first data in the queue:");  
 DeQueue(Q,e);  
 printf("%d\n",e);  
 }  
   
 }