

Queue using Two Stacks

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#include <stdio.h>
#include <string.h>
#include <math.h>
#include <stdlib.h>

#define MAX 100000

int stack1[MAX], stack2[MAX];
int top1=-1, top2=-1;

void push1(int x){
    stack1[++top1]=x;
}

int pop1(){
    return stack1[top1--];
}

void push2(int x){
    stack2[++top2]=x;
}

int pop2(){
    return stack2[top2--];
}

void enqueue(int x){
    push1(x);
}

void dequeue(){
    if(top2== -1){
        while(top1!= -1){
            push2(pop1());
        }
    }
    if(top2!= -1){
        pop2();
    }
}

void printFront(){
    if(top2== -1){
```

```

        while(top1!=-1){
            push2(pop1());
        }
    }
    if(top2!=-1){
        printf("%d\n",stack2[top2]);
    }
}

int main(){
    int q;
    scanf("%d",&q);
    while(q--){
        int type;
        scanf("%d",&type);
        if(type==1){
            int x;
            scanf("%d",&x);
            enqueue(x);
        } else if(type==2){
            dequeue();
        } else if(type==3){
            printFront();
        }
    }
    return 0;
}

```