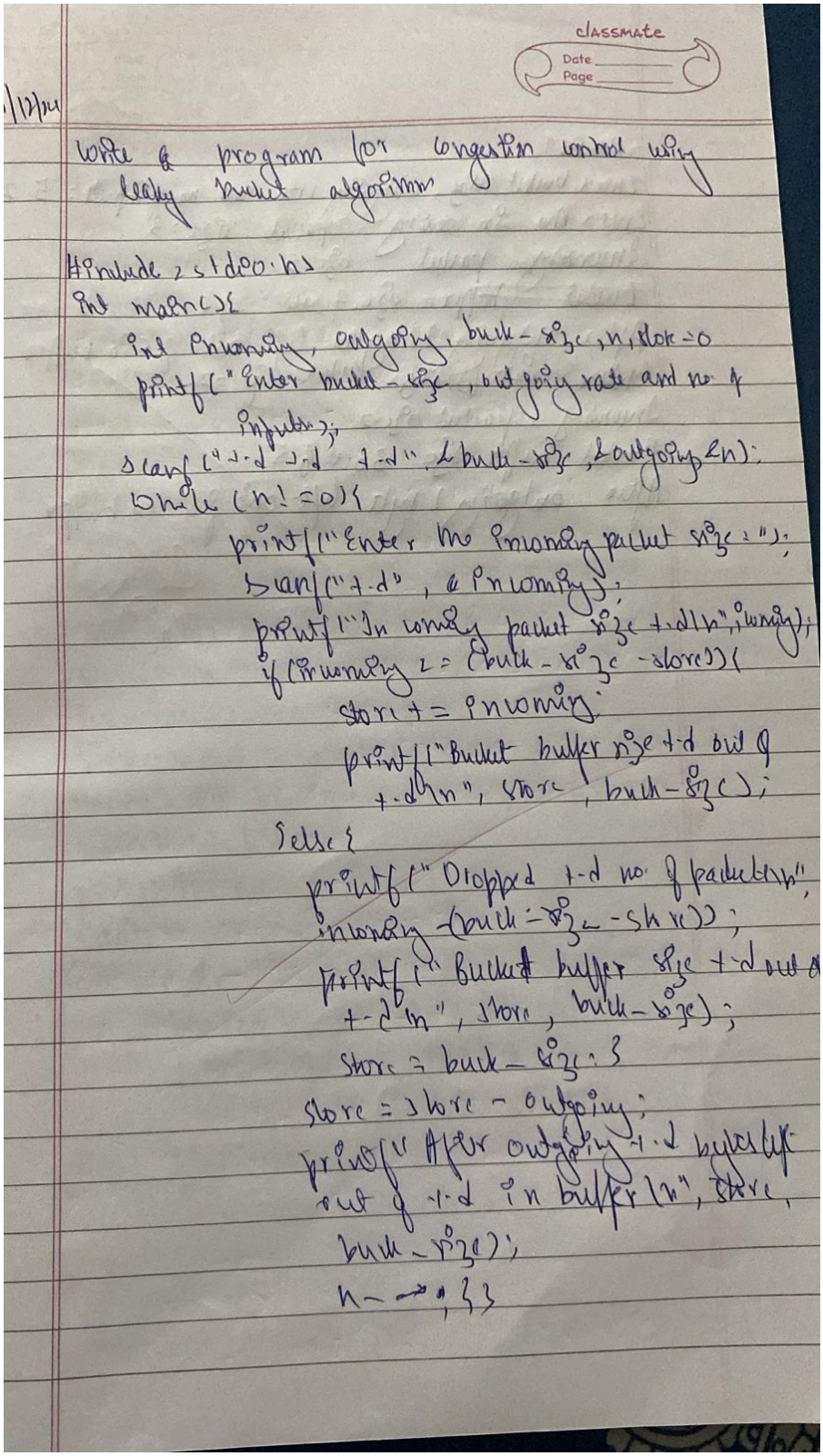
Program 2

Aim of the program: Write a program for congestion control using Leaky bucket algorithm

Code:

```
#include<stdio.h>
int main(){
   int incoming, outgoing, buck_size, n, store = 0;
   printf("Enter bucket size, outgoing rate and no of inputs: ");
   scanf("%d %d %d", &buck_size, &outgoing, &n);
   while (n != 0) {
      printf("Enter the incoming packet size : ");
      scanf("%d", &incoming);
      printf("Incoming packet size %d\n", incoming);
      if (incoming <= (buck_size - store)){
         store += incoming;
         printf("Bucket buffer size %d out of %d\n", store, buck_size);
      } else {
         printf("Dropped %d no of packets\n", incoming - (buck_size - store));
         printf("Bucket buffer size %d out of %d\n", store, buck_size);
         store = buck_size;
      }
      store = store - outgoing;
      printf("After outgoing %d bytes left out of %d in buffer\n", store, buck_size);
      n--;
   }
}
```

```c
#include<stdio.h>
int main(){
    int incoming, outgoing, buck_size, n, store = 0;
    printf("Enter bucket size, outgoing rate and no of inputs: ");
    scanf("%d %d %d", &buck_size, &outgoing, &n);
    while (n != 0) {
        printf("Enter the incoming packet size : ");
        scanf("%d", &incoming);
        printf("Incoming packet size %d\n", incoming);
        if (incoming <= (buck_size - store)){
            store += incoming;
            printf("Bucket buffer size %d out of %d\n", store, buck_size);
        } else {
            printf("Dropped %d no of packets\n", incoming - (buck_size - store));
            printf("Bucket buffer size %d out of %d\n", store, buck_size);
            store = buck_size;
        }
        store = store - outgoing;
        printf("After outgoing %d bytes left out of %d in buffer\n", store, buck_size);
        n--;
    }
}
```



Write a program for congestion control using leaky bucket algorithm

```
#include<stdio.h>
int main(){
    int incoming, outgoing, buck_size, n, store=0
    printf("Enter bucket size, outgoing rate and no. of inputs:");
    scanf("%d %d %d", &buck_size, &outgoing, &n);
    while(n!=0){
        printf("Enter the incoming packet size:");
        scanf("%d", &incoming);
        printf("Incoming packet size %d\n", incoming);
        if(incoming <= (buck_size - store)){
            store += incoming;
            printf("Bucket buffer size %d out of %d\n", store, buck_size);
        }else{
            printf("Dropped %d no. of packets\n", incoming-(buck_size-store));
            printf("Bucket buffer size %d out of %d\n", store, buck_size);
            store = buck_size;
        }
        store = store - outgoing;
        printf("After outgoing %d bytes left out of %d in buffer\n", store, buck_size);
        n--;
    }
}
```

Output:

```
Enter bucket size, outgoing rate and no of inputs: 5    2       2
Enter the incoming packet size : 3
Incoming packet size 3
Bucket buffer size 3 out of 5
After outgoing 1 bytes left out of 5 in buffer
Enter the incoming packet size : 2
Incoming packet size 2
Bucket buffer size 3 out of 5
After outgoing 1 bytes left out of 5 in buffer
```