

class Leaky Bucket:

```
def __init__(self, bucket_size, output, packets):
    self.bucket_size = bucket_size
    self.output = output
    self.packets = packets
```

```
def congestion_control(self):
```

```
    for i in range(self.no-of-packets):
```

```
        print("packet no: ", i, " packet size = ", packets[i])
```

```
        if packets[i] > bucket_size:
```

```
            print("Bucket overflow")
```

```
        else:
```

```
            while packets[i] > output:
```

```
                print(" ", packets[i], " bytes outputted")
```

```
                packets[i] -= output
```

```
            if packets[i]:
```

```
                print("lost ", packets[i], " bytes  
                sent")
```

```
            print("Bucket output successful")
```

```
bucket_size = int(input("Enter bucket size: "))
```

```
output = int(input("Enter output rate: "))
```

```
packets = list(map(int, input("Enter packets: ").split()))
```

```
Leaky Bucket = Leaky Bucket
```

```
network = Leaky Bucket(bucket_size, output, packets)
```

```
network.congestion_control()
```

Teacher's Signature: _____