MUHAMMAD GALUH GUMELAR

J0403221017

1. Sekuensial search
Data = [17, 83, 37, 6, 10, 82, 5, 11, 1]
index 0   1 2 3 4 5 6 7 8
data = 17 83 37 6 10 82 5 11 1

cari posisi (index): x = 37
cek data[0]=17 != x bukan
cek data[1]=83 != x
cek data[2]=37 == x ----> 2

2. Binary search
Data = [17, 83, 37, 6, 10, 82, 5, 11, 1]

```
         q                                  k
Index = 0   1   2   3  4   5   6  7   8
Data = [1, 5, 6, 10, 11, 17, 37, 82, 83]
```

PUTARAN 1

```
      q               t               k
Index 0   1   2   3   4   5   6   7   8
Data  1   5   6   10  11  17  37  82  83
```

x = 37
q=0, k=8, t=(q+k)//2 = (0+8)//2 = 4
cek data tengah data[t]=data[4]= 11!= x
karena x > data tengah, pencarian fokus ke bagian kanan
q=5 , k=8

PUTARAN 2

```
      q   t       k
indx  5   6   7   8
data  17  37  82  83
```

t = 6
data tengah = data[6]=37 == x -----> 6

x=37
q=0,k=8,t=4--->data[t]=11 bukan, x lebih besar, fokus ke kanan
q=t+1=5,k=8,t=6; data[t]=37