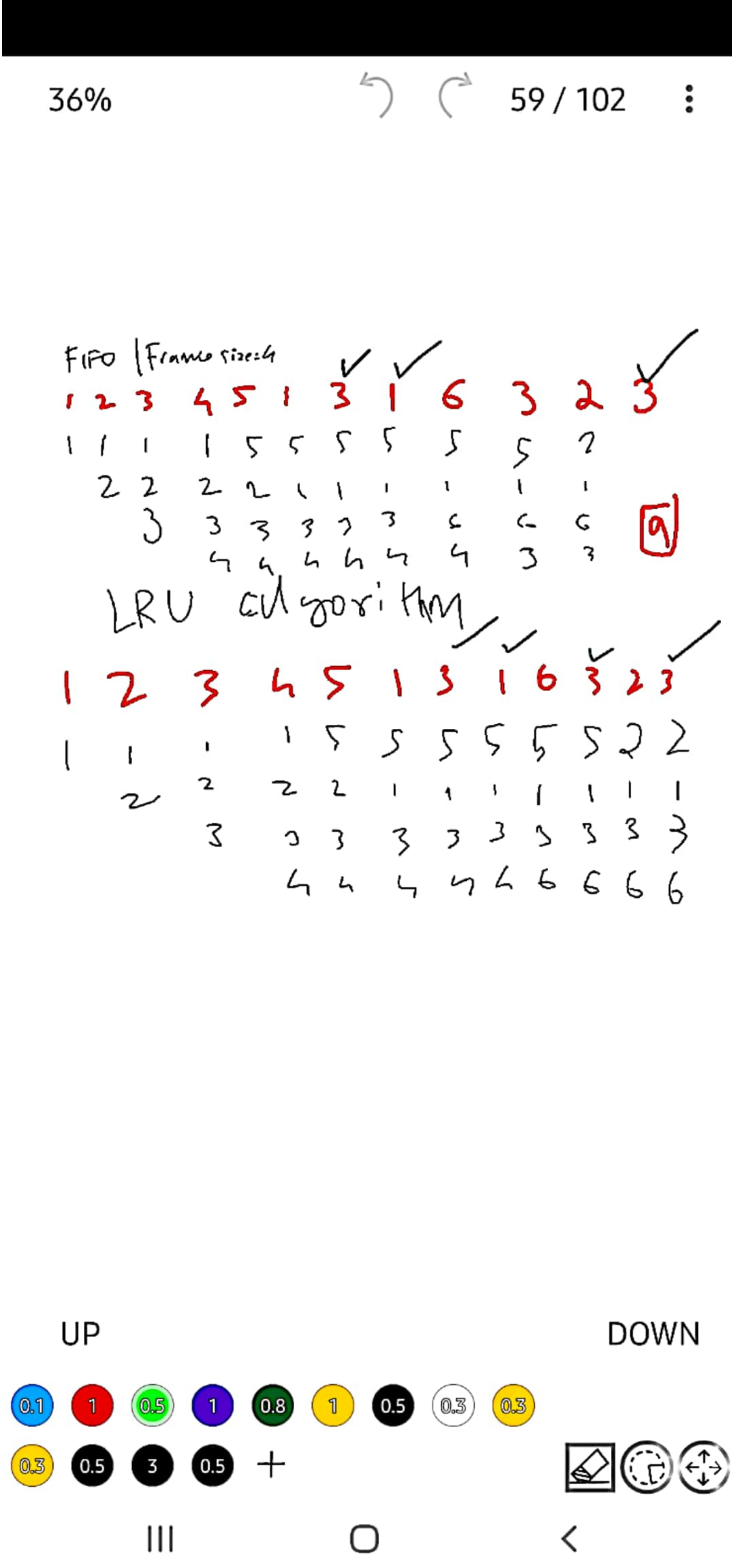
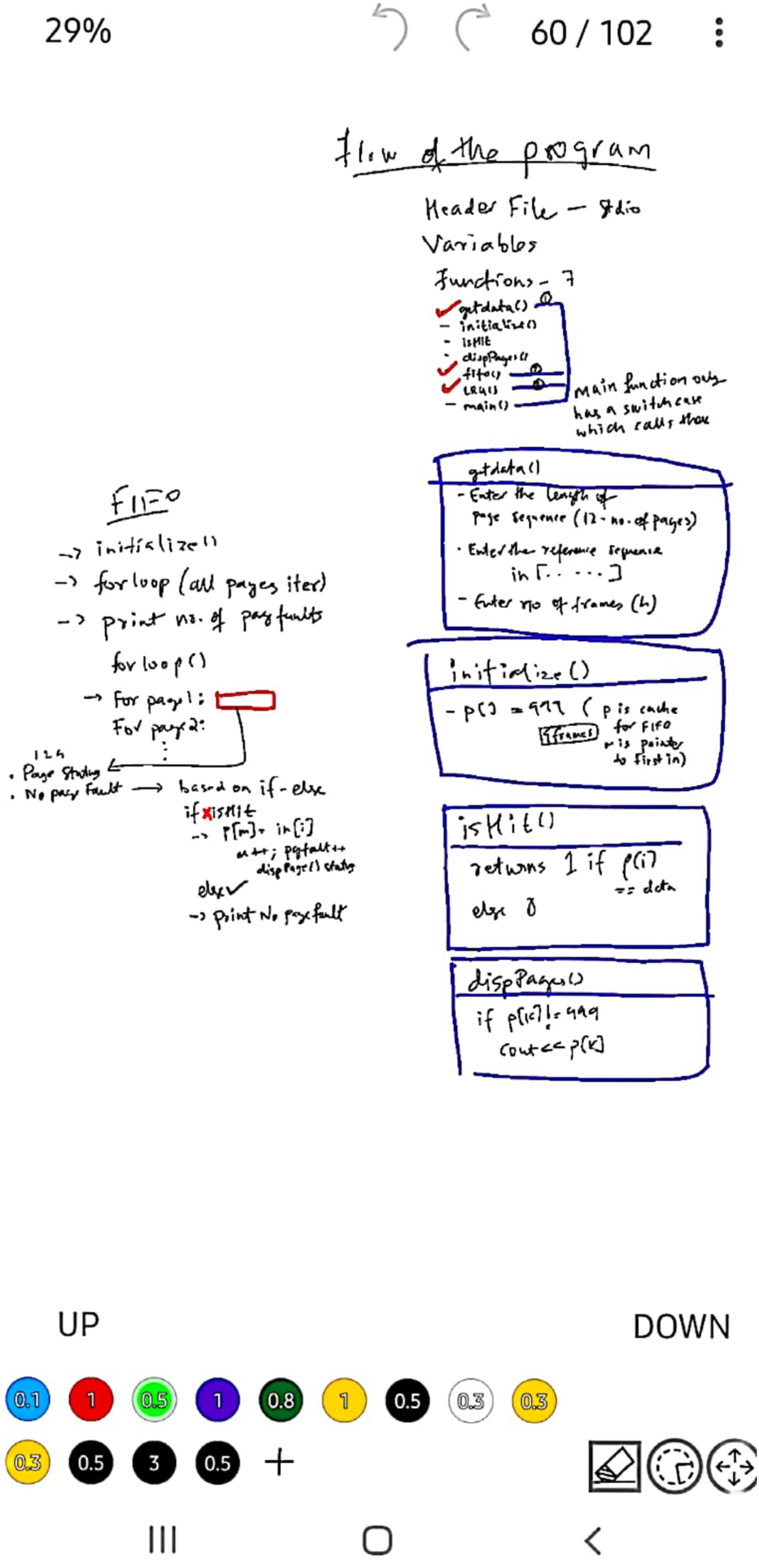


FIFO | Frame size:4

|  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  |  |  |  |  | ✓ | ✓ |  |  |  | ✓ |  |
| 1 | 2 | 3 | 4 | 5 | 1 | 3 | 1 | 6 | 3 | 2 | 3 |  |
| 1 | 1 | 1 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 2 |  |  |
|  | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 |  |  |
|  |  | 3 | 3 | 3 | 3 | 3 | 3 | 6 | 6 | 6 |  | $\boxed{9}$ |
|  |  |  | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 |  |  |

LRU algorithm

|  |  |  |  |  |  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  |  |  |  |  | ✓ | ✓ |  | ✓ |  | ✓ |
| 1 | 2 | 3 | 4 | 5 | 1 | 3 | 1 | 6 | 3 | 2 | 3 |
| 1 | 1 | 1 | 1 | 5 | 5 | 5 | 5 | 5 | 5 | 2 | 2 |
|  | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
|  |  | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
|  |  |  | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 |



## flow of the program

Header File — stdio

Variables

Functions – 7

- ✓ getdata() ①
- – initialize()
- - isHit
- - dispPages()
- ✓ fifo() ①
- ✓ LRU() ②
- – main()

Main function only has a switch case which calls those

**getdata()**

- Enter the length of page sequence (12 - no. of pages)
- Enter the reference sequence in [. . . . . ]
- Enter no of frames (4)

**initialize()**

- p[] = 999 (p is cache for FIFO m is pointer to first in)

\boxed{frames}

**isHit()**

returns 1 if p[i] == data
else 0

**dispPages()**

if p[k] != 999
cout<< p(k)

## FIFO

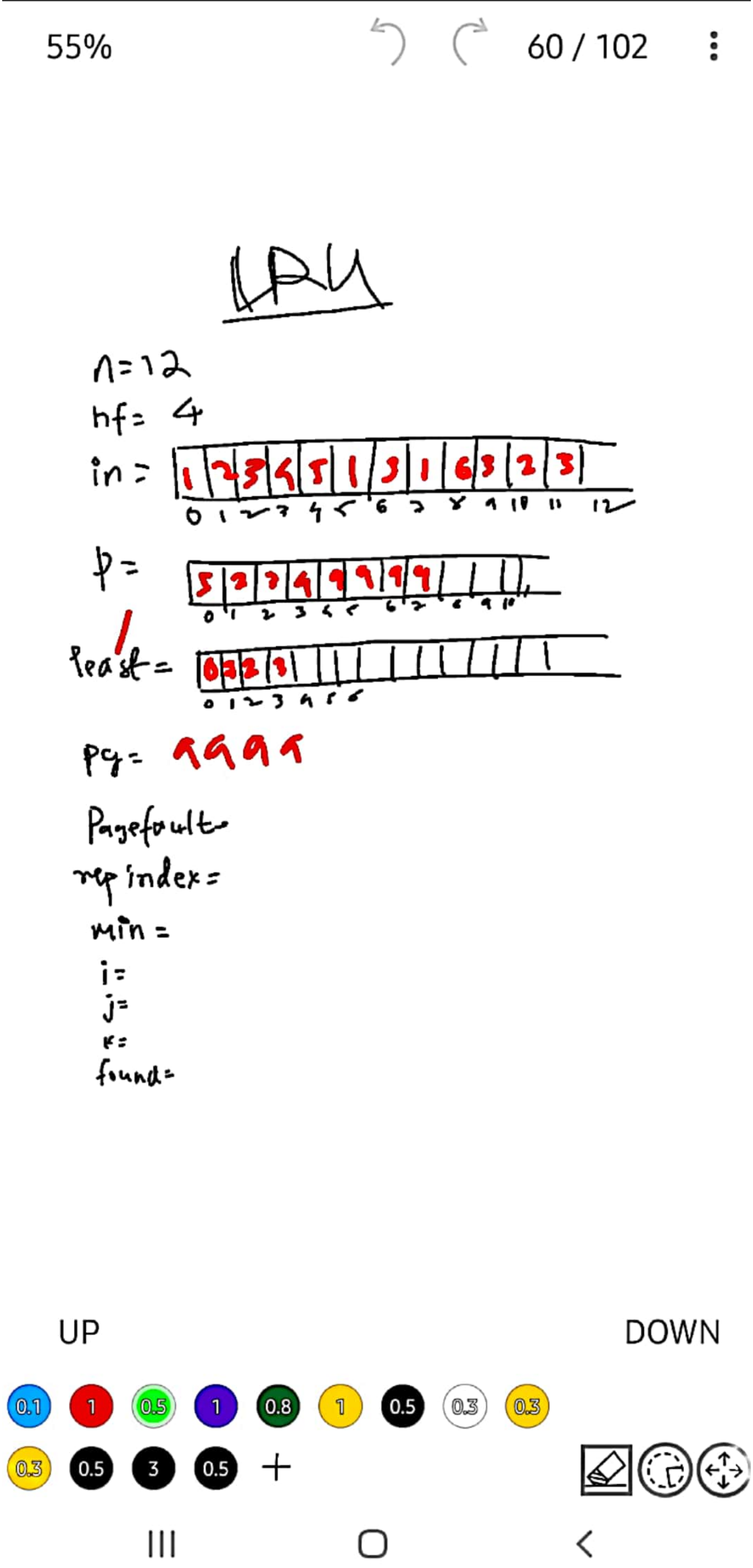
- -> initialize()
- -> for loop (all pages iter)
- -> print no. of page faults

for loop()

-> For page 1:
For page 2:
⋮

124
- Page Stating
- No page Fault -> based on if - else

if ~~x~~ isHit
-> p[m] = in[i]
m++; pgfault++
dispPage() status
else ✓
-> print No page fault



# LRU

n=12

nf= 4

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| in = | 1 | 2 | 3 | 4 | 5 | 1 | 3 | 1 | 6 | 3 | 2 | 3 | |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| p = | 5 | 2 | 7 | 4 | 9 | 9 | 9 | 9 | | | |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| least = | 0 | 2 | 2 | 3 | | | |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 |

pg= 9999

Pagefault=

rep index=

min =

i=

j=

k=

found=