

FSM:

```
graph LR; Start(( )) --> S((S)); S -- A --> M(((M))); M -- B --> M; M -- C --> E(((E))); M -- D --> N((N)); N -- E --> M; N -- F --> N;
```

read3

read4

read7

read9

read8

10M

10N

9M

10N

8M

10N

5M

10N

6M

10M

11M

10M

10M

19

19

20

23

38

A

B

C

D

E

F

F

2 1

2 3 3 3 4 4 4 4 1

3 1

3 4 4 4 4 4 4 4 1

3 1

4 5 5 5 5 5 4 4 4 1

3 1

3 1

10

19 20

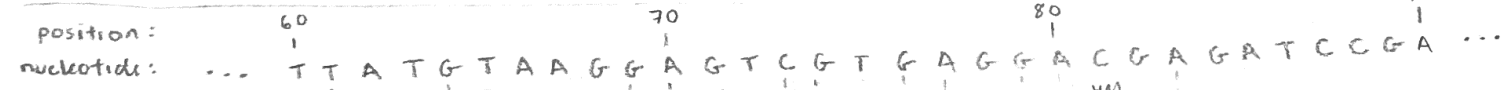
23

27 28

38 39

44

47 48 49



The diagram illustrates a sequence of reads and writes on a memory structure. The reads are labeled read0 through read6, and the writes are labeled w0 through w6. The diagram shows the state of memory blocks and the sequence of reads and writes.

| Read/Write | Address | Size | Value |
|------------|---------|------|-------|
| read0      | 61      | 4M   | 5N    |
| read1      | 65      | 1M   | 3N    |
| read2      | 65      | 1M   | 5M    |
| read3      | 65      | 1M   | 2N    |
| read4      | 65      | 1M   | 5M    |
| read5      | 65      | 1M   | 5N    |
| read6      | 70      | 5M   | 5N    |
| w0         |         | 4M   |       |
| w1         |         | 5M   |       |
| w2         |         | 6M   |       |
| w3         |         | 5M   |       |
| w4         |         | 2M   |       |
| w5         |         | 3M   |       |
| w6         |         | 4M   |       |

transition matrix:

|   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|
| A | 1 |   |   |   |   |   |   |   |   |
| B | 3 | 5 | 5 | 5 | 3 |   |   | 1 |   |
| C |   |   |   |   |   |   |   |   | 1 |
| D |   |   |   |   | 2 | 3 |   |   |   |
| E | 1 |   |   |   |   |   | 1 |   |   |
| F |   |   |   |   | 2 | 4 | 4 | 4 | 3 |

reverse strand (none here)

|   |  |
|---|--|
| A |  |
| : |  |
| : |  |
| F |  |