Akari Olivares

The Queue

int[] q = new int[10];

Front

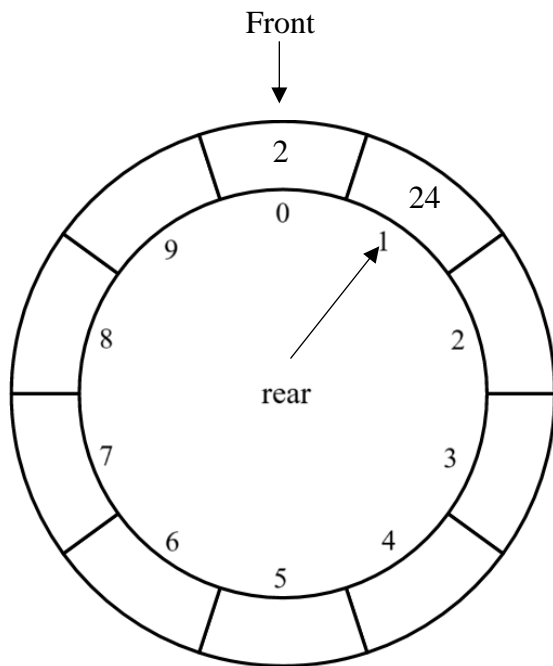| front:	0
rear:	0
q[front]:	0
q[rear]:	0
size:	0
length:	10
[output]:	N/A

a) enqueue(2)
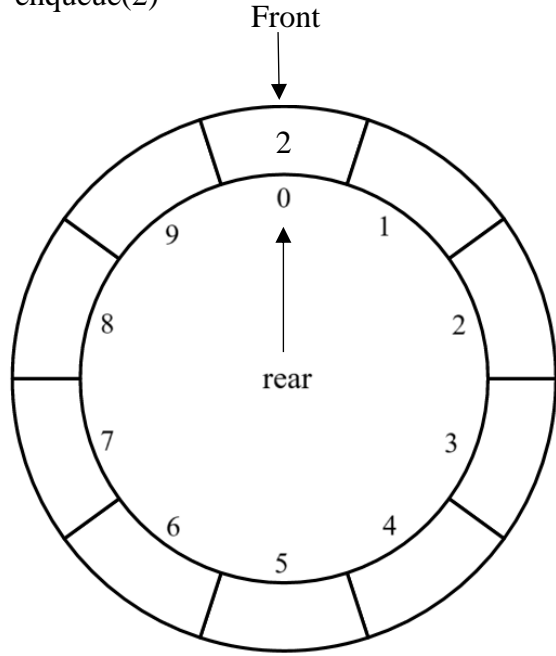
Front

front:	0
rear:	0
q[front]:	2
q[rear]:	2
size:	1
length:	10
[output]:	N/A

b) enqueue(24)

Front

front:	0
rear:	1
q[front]:	2
q[rear]:	24
size:	2
length:	10
[output]:	N/A

c) enqueue(18)
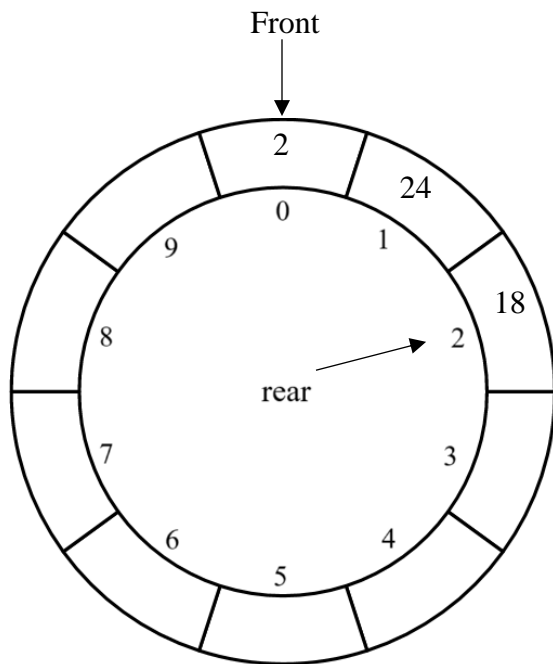
Front

front:	0
rear:	2
q[front]:	2
q[rear]:	18
size:	3
length:	10
[output]:	N/A

d) dequeue()

Front

```
   24
 0
9    1
        18
8      2
  rear
7       3
 6     4
   5
```
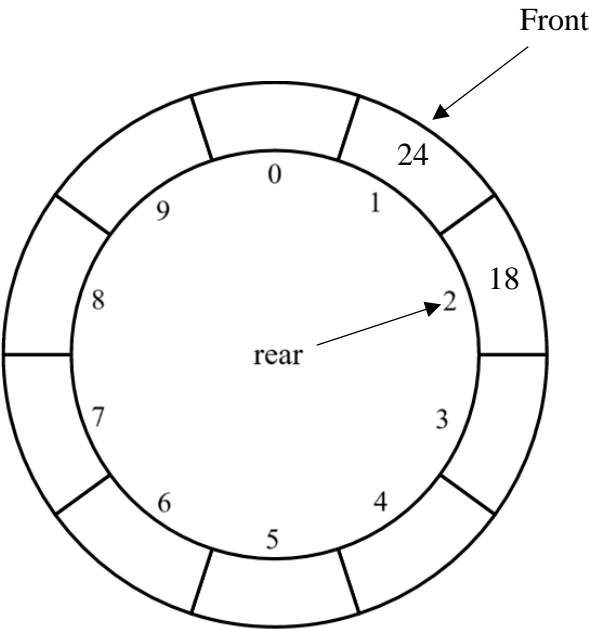
front:	1
rear:	2
q[front]:	24
q[rear]:	18
size:	2
length:	10
[output]:	2

e) peek()

Front

```
   24
 0
9    1
        18
8      2
  rear
7       3
 6     4
   5
```
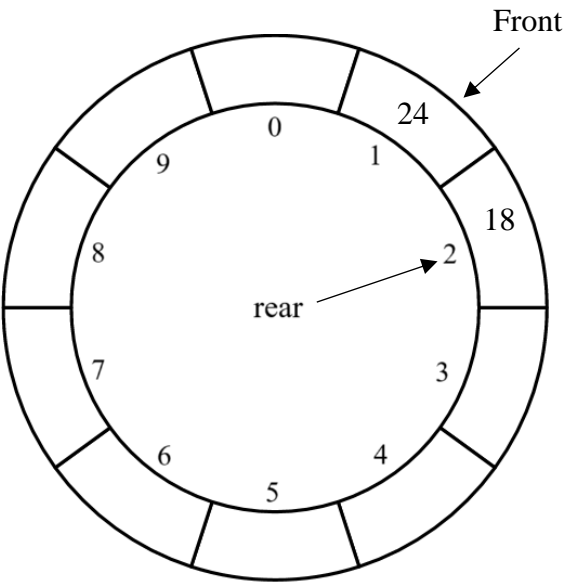
front:	1
rear:	2
q[front]:	24
q[rear]:	18
size:	2
length:	10
[output]:	24

f) enqueue(7)
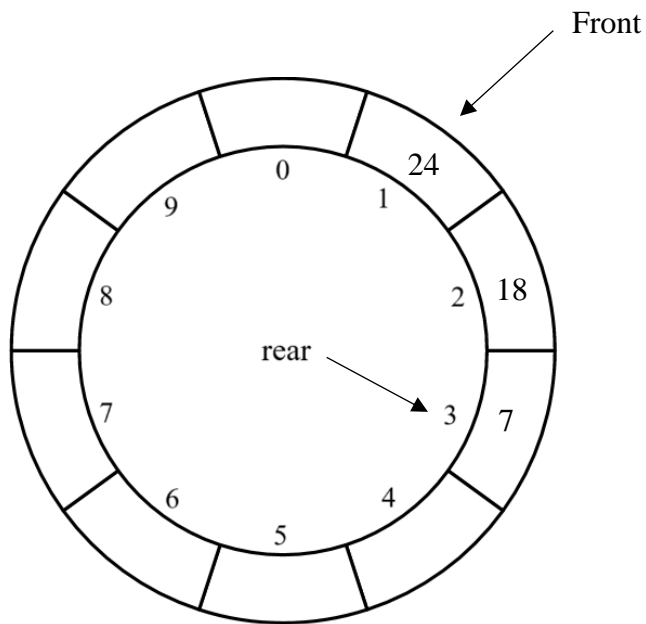
Front

front:	1
rear:	3
q[front]:	24
q[rear]:	7
size:	3
length:	10
[output]:	N/A

g) enqueue(88)
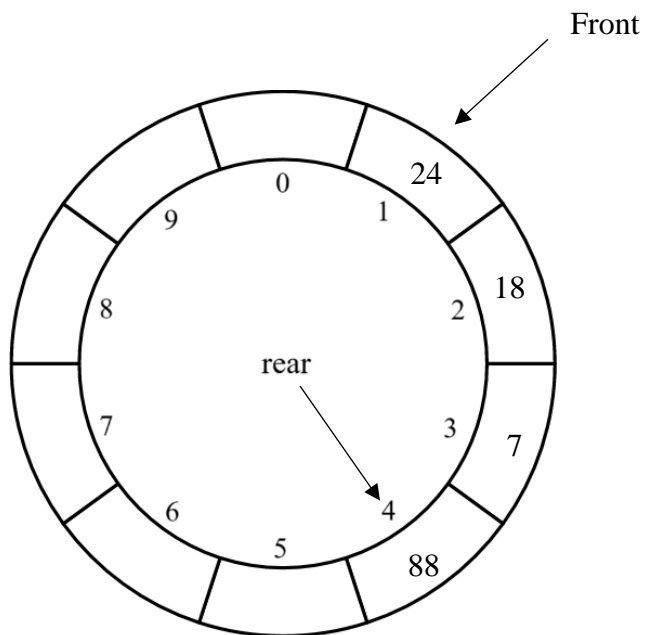
Front

front:	1
rear:	4
q[front]:	24
q[rear]:	88
size:	4
length:	10
[output]:	N/A

h) enqueue(82)
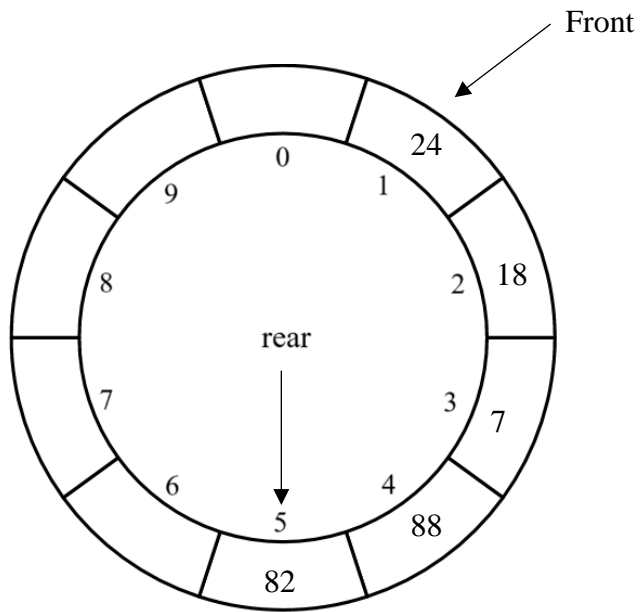
front:	1
rear:	5
q[front]:	24
q[rear]:	82
size:	5
length:	10
[output]:	N/A

i) enqueue(5)
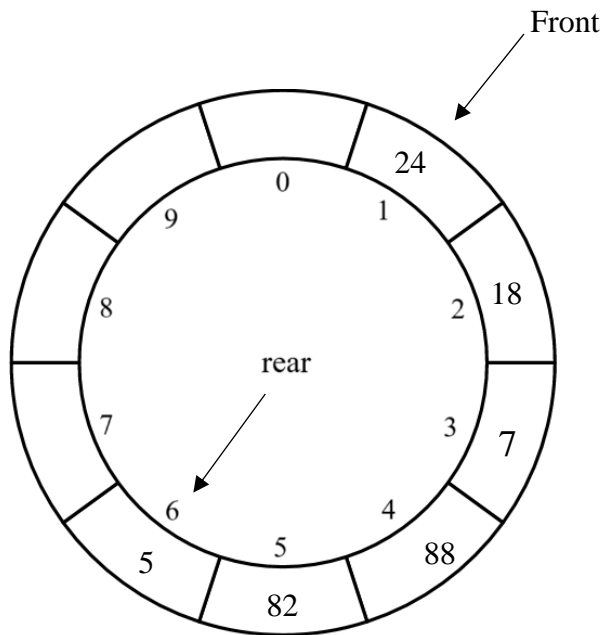
front:	1
rear:	6
q[front]:	24
q[rear]:	5
size:	6
length:	10
[output]:	N/A

j) enqueue(1)
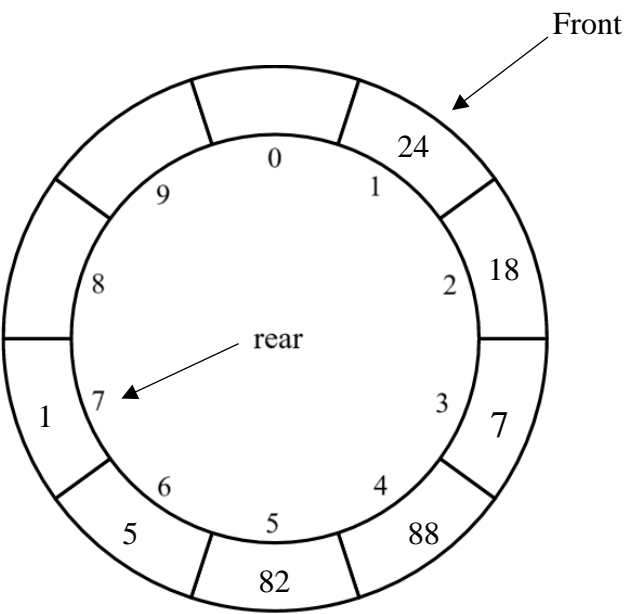
front:	1
rear:	7
q[front]:	24
q[rear]:	1
size:	7
length:	10
[output]:	N/A

k) enqueue(1)
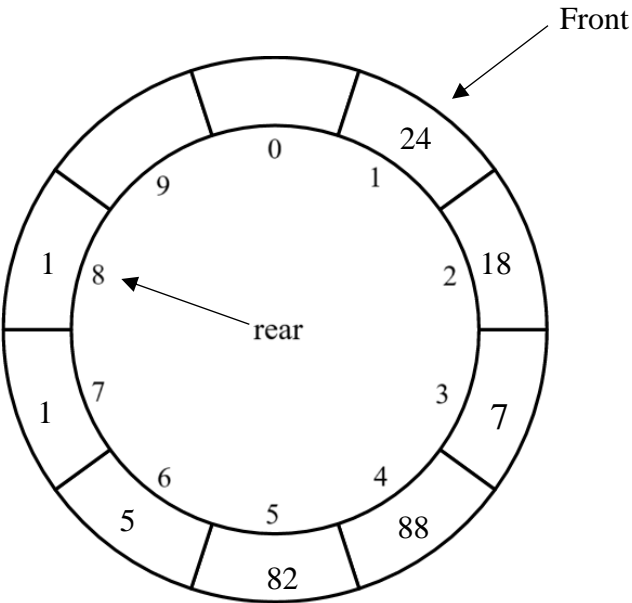
front:	1
rear:	8
q[front]:	24
q[rear]:	1
size:	8
length:	10
[output]:	N/A

l) enqueue(1)
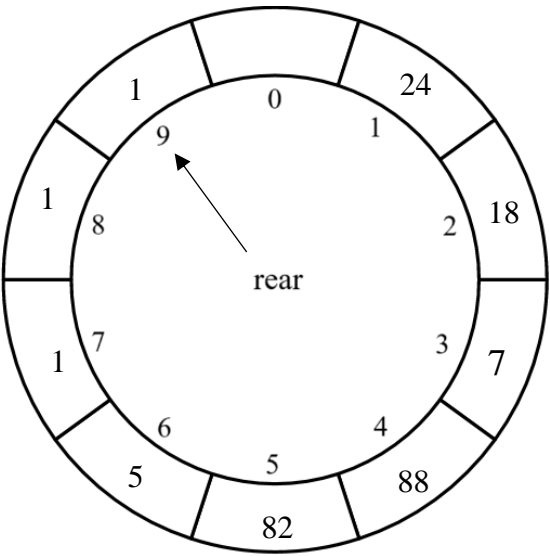
front:	1
rear:	9
q[front]:	24
q[rear]:	1
size:	9
length:	10
[output]:	N/A

m) enqueue(1)
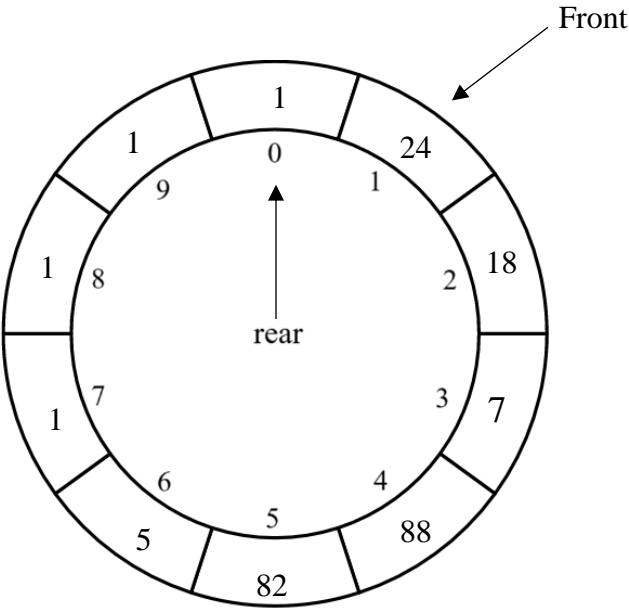
front:	1
rear:	0
q[front]:	24
q[rear]:	1
size:	10
length:	10
[output]:	N/A