

Q2

Queue Q									
1	2	3	4	5	6	7	8	9	10

Q

x = 2

y = 4

z = 6

x	y	z	4	5	6	7	8	9	10
2	4	6							

2. Append (8)

x	y	z	4	5	6	7	8	9	10
2	4	6	8						

3. Append (x-y)

x	y	z	4	5	6	7	8	9	10
2	4	6	8						

$$2 - 4 = -2$$

x	y	z	4	5	6	7	8	9	10
2	4	6	8						

4. Append (z)

z value = 6

x	y	z		5	6	7	8	9	10
2	4	6	8						

5. y += g.serve()

$$\begin{array}{rclcl} Y & + & \text{serve()} & & \\ Y = 4 & + & 8 & = & 12 \end{array}$$

x	y	z		5	6	7	8	9	10
2	12	6	8						

6. g.append (x+z)

$$x + z = 8$$

x	y	z		5	6	7	8	9	10
2	12	6	8						

7. $z = g.\text{serve}() - 4$

8 + 2 = 10
Then minus 4

10 - 4 = 6

8. Store value $z = 6$

x	y	z		5	6	7	8	9	10
2	12	6	8						

9. $g.\text{append}(z)$

x	y	z		z	6	7	8	9	10
2	12	6	8	6					

10. $g.\text{append}(3)$

x	y	z		z	6	7	8	9	10
2	12	6	8	6	3				

11. $x -= q.\text{serve}()$ $x = x - z$ serve the 1st element of the queue (z) and subtract it from x
 $z = 6$

2 - 6 = -4

x	y	z		z	6	7	8	9	10
2	12	6	8	6	3				

Queue Q

$$M = 6$$

$N = 8$

Holds 10 Integer

[illegible]

1. Enqueue (m)

Front	1	2	3	4	5	6	7	8	9	10	back
	6										

2. Enqueue (n)

Front	1	2	3	4	5	6	7	8	9	10	back
	6	8									

```
3. n+=q.dequeue()
```

```
n = n+dequeue
```

Front	1	2	3	4	5	6	7	8	9	10	back
	8										

4. q.Enqueue (n)

Front	1	2	3	4	5	6	7	8	9	10	back
	8	8									

```
5. q.Enqueue(m+n);
```

$$m = 6$$
$$n = 8$$

Front	1	2	3	4	5	6	7	8	9	10	back
	8	14									

```
6. if (q.dequeue() >= m)
```

```
m = q.dequeue()
```

8 \geq 6 dequeue 8

Front	1	2	3	4	5	6	7	8	9	10	back
	14										

7. q.Enequeue(m)

Front	1	2	3	4	5	6	7	8	9	10	back
	14	6									

8. q.enqueue (12)

Front	1	2	3	4	5	6	7	8	9	10	back
	14	6	12								

```
9. if (q.Denqueue() < m)
   m = q.dequeue()
```

14 < 6 False
Dequeue

Front	1	2	3	4	5	6	7	8	9	10	back
	6	12									

SUBMISSIVE QUESTION

Queue que = Holds 10 intergers

1. ADTqueue que;
initialize Queue for que

Front	1	2	3	4	5	6	7	8	9	10	back

2. int x = 3

3. int y = 6

4. que.append (8)

	1	2	3	4	5	6	7	8	9	10	
	8										

5. que.append (x-y)

$$3 - 6 = -3$$

	1	2	3	4	5	6	7	8	9	10	
	8	-3									

6. que.append(y);

	1	2	3	4	5	6	7	8	9	10	
	8	-3	6								

7.y %= que.serve();

$$6 \% 8 = 6$$

	1	2	3	4	5	6	7	8	9	10	
	-3	6	6								

8. que.append(x);

	1	2	3	4	5	6	7	8	9	10	
	-3	6	3								

9. y = que.serve () * 2;

$$-3 * 2 = -6$$

	1	2	3	4	5	6	7	8	9	10	
	6	3	-6								

10. que.append(y);

	1	2	3	4	5	6	7	8	9	10	
	6	3	-6								

11.que.append (3);

	1	2	3	4	5	6	7	8	9	10	
	6	3	-6	3							

12.x *= que.serve();

$$3 \quad * \quad 6 \quad = \quad 18$$

	1	2	3	4	5	6	7	8	9	10	
	3	-6	3	18							

13. que.append(x);

	1	2	3	4	5	6	7	8	9	10	
	3	-6	3	18							

14. que.append(pow(y,2));

$$y = -6$$

$$y = -6^2 = 36$$

	1	2	3	4	5	6	7	8	9	10	
	3	-6	3	18	36						

15. cout<<"Elements in the queue are :\n";

	1	2	3	4	5	6	7	8	9	10	
	3	-6	3	18	36						

16. while(!que.empty())

```
{
    cout<<que.serve( )*5<<endl;
}
```

$$15 \quad -30 \quad 15 \quad 90 \quad 180$$

	1	2	3	4	5	6	7	8	9	10	
	15	-30	15	90	180						

Output =	15	-30	15	90	180
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