

Queue Questions

1. Create a queue that contains 10 letters in it (say, 'm', 'z', 'f', 'b', 'a' and so on). You will need to enqueue each letter separately.
2. Print the queue on the screen. (print a title first to explain which question you are answering).
3. Reverse the order of the queue using a stack. Print the queue on the screen. (print a title first to explain which question you are answering).
4. Print every second element of the queue on the screen. (print a title first to explain which question you are answering).

```
public class Queue {
    private Object data[] = new Object [50];
    int count;
    int head;

    public Queue () {
        count = 0;
        head = 0;
    }

    public void enqueue (Object value) {
        int tail = (head + count) % data.length;
        data [tail] = value;
        count++;
    }

    public Object dequeue () {
        Object temp = data [head];
        count--;
        head = (head + 1) % data.length;
        return temp;
    }

    public Object peek () {
        return data [head];
    }

    public int size () {
        return count;
    }

    public boolean isEmpty () {
        return (count == 0);
    }

    public String toString () {
        //this is NOT an official Queue method
        //it is useful to see what is in your Queue
        int size = count;
        String hold = "";
        for (int i = 0 ; i < size ; i++) {
            Object temp = dequeue ();
            hold += temp + " ";
            enqueue (temp);
        }
        return hold;
    }
}
```

