**QUESTION FOUR: DSA in Practise**

Traceability Matrix

| Functionality | Implementation | Tests |
|---|---|---|
| Add | Adds object into priority queue based off numerical value of input to determine priority. | Add integers 5, 1, 3, and 8 to priority queue using .add(). Check if fails |
| Get size | Returns integer representing number of objects in the queue | Checks if size of queue is 4 using .size(). |
| Remove | Removes and returns a specific object within priority queue | Removes integer 3 using .remove(3). Check if fails. Check if size of queue is 3 |
| Peek first | Returns head of queue | Check if returned value is equal to integer 1 using peekFirst(). |
| Poll | Removes and returns head of queue | Checks if returned value from .poll() is integer 1. Checks if size of queue is 2. |
| Check if empty | Returns Boolean value which indicates if queue is empty or not | Checks if queue is empty using isEmpty(). .poll() is called twice to empty queue. Check if queue is empty again. |