

May want to remove a specific entry from the array, can't just remove the last entry, need to:

- find the specified entry
- delete the specified entry
- adjust the array accordingly

```
198⊖  /** Removes one occurrence of a given entry of this bag.
199      * @param anEntry
200      *       the entry to be removed
201      * @return true if the removal was successful, false if not
202      */
203⊖  public boolean remove(T anEntry)
204      {
205          int index = getIndex0f(anEntry);
206          T result = removeEntry(index);
207          return anEntry.equals(result);
208      }
209
```

```

160⊖  /**Helper method that returns the index of the entry in the contents array
161     * @param anEntry
162     *       the value looking for in the array
163     * @return an index of anEntry in the contents array, or -1 if anEntry is not in the array
164     */
165⊖  private int getIndexOf(T anEntry)
166  {
167
168     for (int i = 0; i < numberOfEntries; i++)
169     {
170         if (anEntry.equals(contents[i]))
171         {
172             return i;
173         }
174     }
175     return -1;
176 }
177
178⊖  /**Helper method that removes and returns an entry at a given index wihtin the contents array
179     * @param givenIndex
180     *       the index of the desired element of the contents array
181     * @return the entry at the given index
182     * @precondition: 0 <= givenIndex < numberOfEntries
183     */
184⊖  private T removeEntry(int givenIndex)
185  {
186     T result = null;
187     if (!isEmpty() && (givenIndex >= 0))
188     {
189         result = contents[givenIndex];
190         contents[givenIndex] = contents[numberOfEntries - 1];
191
192         contents[numberOfEntries - 1] = null;
193         numberOfEntries --;
194     }
195     return result;
196 }

```

```

209
210 //improved version of contains
211 /**@inheritDoc
212 @Override
213 public boolean contains(T anEntry)
214 {
215     return getIndex0f(anEntry) > -1;
216 }***/
217
218 //improved version of remove() using removeEntry(anEntry)
219 /**@inheritDoc
220 * Uses strategy that removes and returns the last element in the array
221 *
222 @Override
223 public T remove()
224 {
225     T result = removeEntry(numberOfEntries-1);
226     return result;
227 }***/
228

```