### Question 1: SongList

<table>
<thead>
<tr>
<th>Part (a)</th>
<th>getDownloadInfo</th>
<th>4 points</th>
</tr>
</thead>
</table>

**Intent:** Search download list for requested title and return matching `DownloadInfo` object if found.

- +1 Accesses all necessary entries in `downloadList` *(no bounds errors)*
- +3 Identifies and returns matching entry in `downloadList`, if it exists
  - +1 Calls `getTitle` on `DownloadInfo` object from `downloadList`
- +1 Checks for equality between title from list object and `title` parameter *(must use String equality check)*
- +1 Returns reference to matching object if present; null if not *(point not awarded for early return)*

<table>
<thead>
<tr>
<th>Part (b)</th>
<th>updateDownloads</th>
<th>5 points</th>
</tr>
</thead>
</table>

**Intent:** Update `downloadList` with information from list of titles

- +1 Accesses all entries in `titles` *(no bounds error for `titles`)*
- +1 Calls `getDownloadInfo(title)` to determine whether title from `titles` list exists in `downloadList`
- +1 Increments the count in matching `DownloadInfo` object if title is in `downloadList`
- +1 Constructs new `DownloadInfo` object (with correct information) if title is not in `downloadList` *(point not awarded if incremented at time of construction)*
- +1 Adds constructed object to end of `downloadList` if title is not in `downloadList` *(point not awarded if added more than once)*

### Question-Specific Penalties

- -1 (g) Uses `getLength/getSize` for `ArrayList` size
- -2 (v) Consistently uses incorrect array name instead of `downloadList/titles`
- -1 (z) Attempts to return a value from `updateDownloads`