Using the Binary Search Algorithm and trace table examples at the end of this document, complete the trace tables below for the Color Array. Upload this document to github and submit the link to your repository to the dropbox.

1st search: violet

|  |  |  |  |
| --- | --- | --- | --- |
| **First** | **Last** | **Middle** | **Comparison** |
| 0 | 10 | 5 | Violet>Indigo |
| 6 | 10 | 8 | Violet>Red |
| 9 | 10 | 9 | Violet = Violet  True |
|  |  |  |  |
|  |  |  |  |

2nd search: green

|  |  |  |  |
| --- | --- | --- | --- |
| **First** | **Last** | **Middle** | **Comparison** |
| 1 | 10 | 5 | Green < Indigo |
| 1 | 6 | 3 | Green > Brown |
| 4 | 6 | 4 | Green = GREEN  TRUE |
|  |  |  |  |
|  |  |  |  |

3rd search: yellow

|  |  |  |  |
| --- | --- | --- | --- |
| **First** | **Last** | **Middle** | **Comparison** |
| 1 | 10 | 5 | Yellow > Indigo |
| 6 | 10 | 8 | Yellow > Red |
| 9 | 10 | 9 | Yellow > Violet |
| 10 | 10 | 10 | Yellow = Yellow  True |
|  |  |  |  |

**Color array**:

|  |  |
| --- | --- |
| aqua | [0] |
| brown | [1] |
| chartreuse | [2] |
| dark brown | [3] |
| green | [4] |
| indigo | [5] |
| lavender | [6] |
| magenta | [7] |
| red | [8] |
| violet | [9] |
| yellow | [10] |



Above: Binary Search Algorithm

