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21 March 2022

Binary Search using Algorithm

**Color array**: **Length: 11**

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

1st search: violet

|  |  |  |  |
| --- | --- | --- | --- |
| **First** | **Last** | **Middle** | **Comparison** |
| 0 | 10 | 5 | violet > indigo |
| 6 | 10 | 8 | violet > red |
| 9 | 10 | 9 | violet = violet  **Return = True** |
|  |  |  |  |
|  |  |  |  |

2nd search: green

|  |  |  |  |
| --- | --- | --- | --- |
| **First** | **Last** | **Middle** | **Comparison** |
| 0 | 10 | 5 | green < indigo |
| 0 | 5 | 2 | green > chartreuse |
| 3 | 5 | 4 | green = green  **Return = True** |
|  |  |  |  |
|  |  |  |  |

3rd search: yellow

|  |  |  |  |
| --- | --- | --- | --- |
| **First** | **Last** | **Middle** | **Comparison** |
| 0 | 10 | 5 | yellow > indigo |
| 6 | 10 | 8 | yellow > red |
| 9 | 10 | 9 | yellow > violet |
| 10 | 10 | 10 | yellow = yellow  **Return = True** |
|  |  |  |  |