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**Solution Review**

# Solution Review

This lesson gives a detailed solution review of the problem.

**We'll cover the following**

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Solution

## Solution #

Here's the merged solution to the problem that we discussed in the previous lesson. The solution also takes into account these two factors:

- Negative steps
- Multi-dimensional arrays

```
1 import numpy as np
2 import matplotlib.pyplot as plt
3
4
5 def find_index(base, view):
6     """
7     Given an array that is a `view` of a `base`, find an index such that
8     `base[index]` is view
9     """
10
11     if not isinstance(view, np.ndarray):
12         return "..."
13
14     itemsize = view.itemsize
15
16     # Find the start and end pointer of the arrays using the byte_bound method
17     offset_start = (np.byte_bounds(view)[0] - np.byte_bounds(base)[0])//itemsize
18     offset_stop = (np.byte_bounds(view)[-1] - np.byte_bounds(base)[-1]-1)//itemsize
19
20     # Calculate the start and stop indices from the offsets
21     index_start = np.unravel_index(offset_start, base.shape)
22     index_stop = np.unravel_index(base.size+offset_stop, base.shape)
23
24     # Use the strides property to find the No. of bytes to go from one element to the other
25     index_step = np.array(view.strides)//np.array(base.strides)
26
27     index = ""
28     for i in range(len(index_step)):
```

RUN

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Now that we have learned about the anatomy of an array, let's move on to the next chapter "Code Vectorization".

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