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COGNIZANCE TASK - 3.

Question - 1: `Consider the vector [10, 11, 12, 13, 14], how to build a new vector with 5 consecutive zeros interleaved between each value?`
File name: task3q1.py

Output:

```
Enter First Number: 13
Enter Second Number: 16
[13.  0.  0.  0.  0.  0. 14.  0.  0.  0.  0.  0. 15.  0.  0.  0.  0.  0.
 16.]
```

Question - 2: `Consider two random array A and B, check if they are equal`
File name: task3q2.py

Output:

```
First array:
[1 0 1 0 1 0]
Second array:
[1 0 0 1 0 1]
False
```

Question - 3: What is the result of the following expression ?
File name: task3q3.py

Output:
```
nan
True
False
nan
False
```

Question - 4: Convert the first character of each element in a series to uppercase
File name: task3q4.py

Output:
```
Before Changing
['amrita', 'school', 'of', 'engineering', 'chennai', 'campus']
After changing
Amrita School Of Engineering Chennai Campus
```

Question - 5(1): addition of 2 numpy arrays
File name: task3q51.py

Output:
```
1st Input array :  [-6  2  0]
2nd Input array :  [3 6 9]
output added array :  [-3  8  9]
```

Question - 5(5): `Array re-dimensioning`
File name: task3q55.py

Output:

```
Initialised array
[1 2 3 4]
current shape of the array
(4,)
changing shape to 2,2
[[1 2]
 [3 4]]
```