1. Import numpy as `np` and print the version number.
2. Create a 1D array of numbers from 0 to 9 Desired output:

#> array([0, 1, 2, 3, 4, 5, 6, 7, 8, 9])

3. Create a 3×3 numpy array of all True's
4. Extract all odd numbers from arr Input:

```
arr = np.array([0, 1, 2, 3, 4, 5, 6, 7, 8, 9])
```

Desired output:

```
#> array([1, 3, 5, 7, 9])
```

5. Replace all odd numbers in arr with -1 Input:

```
arr = np.array([0, 1, 2, 3, 4, 5, 6, 7, 8, 9])
```

Desired Output:

```
#>  array([ 0, -1,  2, -1,  4, -1,  6, -1,  8, -1])
```

6. Replace all odd numbers in arr with -1 without changing arr Input:

```
arr = np.array([0, 1, 2, 3, 4, 5, 6, 7, 8, 9])
```

Desired Output:

```
out#>  array([ 0, -1,  2, -1,  4, -1,  6, -1,  8, -1])

arr#>  array([0, 1, 2, 3, 4, 5, 6, 7, 8, 9])
```

7. Convert a 1D array to a 2D array with 2 rows Input:

```
np.arange(10)

#> array([ 0, 1, 2, 3, 4, 5, 6, 7, 8, 9])
```

Desired Output:

```
#> array([[0, 1, 2, 3, 4],#>       [5, 6, 7, 8, 9]])
```

8. Stack arrays a and b vertically Input

```
a = np.arange(10).reshape(2,-1)
```

```
b = np.repeat(1, 10).reshape(2,-1)
```

Desired Output:

```
#> array([[0, 1, 2, 3, 4],#>       [5, 6, 7, 8, 9],#>       [1, 1, 1, 1, 1],#>       [1, 1, 1, 1, 1]])
```

9. Stack the arrays `a` and `b` horizontally. Input

```
a = np.arange(10).reshape(2,-1)



b = np.repeat(1, 10).reshape(2,-1)
```

Desired Output:

```
#> array([[0, 1, 2, 3, 4, 1, 1, 1, 1, 1],#>        [5, 6, 7, 8, 9,
1, 1, 1, 1, 1]])
```

10. Create the following pattern without hardcoding. Use only numpy functions and the below input array `a`. Input:

```
a = np.array([1,2,3])`
```

Desired Output:

```
#> array([1, 1, 1, 2, 2, 2, 3, 3, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3])
```

11. Get the common items between `a` and `b` Input:

```
a = np.array([1,2,3,2,3,4,3,4,5,6])

b = np.array([7,2,10,2,7,4,9,4,9,8])
```

Desired Output:

```
array([2, 4])
```

12. From array `a` remove all items present in array `b` Input:

```
a = np.array([1,2,3,4,5])

b = np.array([5,6,7,8,9])
```

Desired Output:

```
array([1,2,3,4])
```

13. Get all items between 5 and 10 from `a`. Input:

```
a = np.array([2, 6, 1, 9, 10, 3, 27])
```

Desired Output:

```
(array([6, 9, 10]),)
```

14. Swap columns 1 and 2 in the array `arr`.

```
arr = np.arange(9).reshape(3,3)

arr
```

15. Print or show only 3 decimal places of the numpy array `rand_arr`. Input:

```
rand_arr = np.random.random((5,3))
```

16.