

Exercise 1:

Create a numpy array with 5 elements consisting of random integers between 1 and 100.

```
np.random.seed(32)
arr = np.random.randint(1,101, size=5)
arr
```

```
array([88, 44,  6, 55, 63])
```

Exercise 2:

Create a numpy array containing the numbers from 1 to 10, and then reshape it to a 2x5 matrix.

```
np.arange(1,11,1).reshape(2,5)
```

```
array([[ 1,  2,  3,  4,  5],
       [ 6,  7,  8,  9, 10]])
```

Exercise 3:

Create a numpy array containing the numbers from 1 to 20, and then extract the elements between the 5th and 15th index.

```
a = np.arange(1,16,1)
print(a)
print(a[5])
print(a[14])
```

```
[ 1  2  3  4  5  6  7  8  9 10 11 12 13 14 15]
6
15
```

Exercise 4:

Create a numpy array with 10 elements consisting of evenly spaced numbers between 0 and 1.

```
a = np.linspace(0,1,10)
a
```

```
array([0.          , 0.11111111, 0.22222222, 0.33333333, 0.44444444,
       0.55555556, 0.66666667, 0.77777778, 0.88888889, 1.          ])
```

Exercise 5:

Create a numpy array containing the numbers from 1 to 9, and then square each element in the array

```
arr = np.arange(1,10)
sqr_arr = np.square(arr)
print(sqr_arr)
```

```
[ 1  4  9 16 25 36 49 64 81]
```
