Problem 12

Multiply a 5x3 matrix by a 3x2 matrix (matrix product).

```
import numpy as np
A = np.zeros([5,3], dtype=int)
B = np.zeros([3,2], dtype=int)

mul = np.matmul(A, B)
```

Problem 13

Given a 1D array, negate in place all elements which are between 3 and 8.

```
import numpy as np
arr = np.arange(15)

m = (arr > 3) & (arr < 8) #creating a mask

arr[m] *= -1 #applying the mask
```

Problem 14

How to find common values between two arrays?

```
import numpy as np
arr1 = np.arange(5, 10)
arr2 = np.arange(8, 13)
#Use the function intersect1d for 1D arrays
print(np.intersect1d(arr1, arr2))
```

Problem 15

How to find the most frequent value in an array? (Use `Z = np.random.randint(0,10,50)` to generate the array)

```
import numpy as np
Z = np.random.randint(0,10,50)
print(Z)
print(np.bincount(Z).argmax())
```