

```
% ASSIGNMENT 2
% Akash Rout (21103080)
```

```
% Question 1
array = [1, 2, 3, 4, 5, 6, 7, 8, 9]
```

```
array = 1x9
      1      2      3      4      5      6      7      8      9
```

```
% Part A
sum(array)
```

```
ans = 45
```

```
% Part B
mean(array)
```

```
ans = 5
```

```
% Part C
min(array)
```

```
ans = 1
```

```
% Part D
max(array)
```

```
ans = 9
```

```
% Question 2
arr=[5, 4, 8; 6, 1, 9; 3, 2, 7]
```

```
arr = 3x3
      5      4      8
      6      1      9
      3      2      7
```

```
% Part A
sort(arr, 2, 'ascend')
```

```
ans = 3x3
      4      5      8
      1      6      9
      2      3      7
```

```
sort(arr, 2, 'descend')
```

```
ans = 3x3
      8      5      4
```

```
9    6    1
7    3    2
```

```
% Part B
sort(arr, 1, 'ascend')
```

```
ans = 3x3
     3     1     7
     5     2     8
     6     4     9
```

```
sort(arr, 1, 'descend')
```

```
ans = 3x3
     6     4     9
     5     2     8
     3     1     7
```

```
% Question 3
```

```
arr(:)
```

```
ans = 9x1
     5
     6
     3
     4
     1
     2
     8
     9
     7
```

```
% Question 4
```

```
issorted(arr(1, :))
```

```
ans = logical
     0
```

```
% Question 5
```

```
% Part A
arr(5)
```

```
ans = 1
```

```
arr(2, 3)
```

```
ans = 9
```

```
% Part B
arr(4, 4)
```

Index in position 1 exceeds array bounds. Index must not exceed 3.

```
% Part C
arr(end+1, end+1)=10
```

```
arr = 4x4
     5     4     8     0
     6     1     9     0
     3     2     7     0
     0     0     0    10
```

```
% Question 6
```

```
A = [1, 2; 3, 4];
B = [5, 6; 7, 8];
```

```
result = A * B
```

```
result = 2x2
    19    22
    43    50
```

```
% Question 7
```

```
columnVector = [10; 20; 30; 40; 50; 60]
```

```
columnVector = 6x1
    10
    20
    30
    40
    50
    60
```

```
% Question 8
```

```
A = [1, 2; 3, 4];
B = [5, 6; 7, 8];
```

```
result_AB = A * B
```

```
result_AB = 2x2
    19    22
    43    50
```

```
result_BA = B * A
```

```
result_BA = 2x2
    23    34
    31    46
```

### % Question 9

```
A=[10, -7, 6, -9; 0, -1, 10, 7; 7, 9, 4, 9];
B=[4, -2, 5, -9; 6, 4, -9, -8; 5, -6, -4, 7];
C=[5, 4, -7, -3; 6, 4, 0, 2; -4, -6, 10, -5];

result=(6*A-8*B)*(C')
```

```
result = 3x3
    10    100   -86
   -1634   -228  1210
     32    416   -50
```

### % Question 10

```
vector = linspace(-3, 3, 50)
```

```
vector = 1x50
   -3.0000   -2.8776   -2.7551   -2.6327   -2.5102   -2.3878   -2.2653   -2.1429 ...
```