Refer to a course material and M06 Kahoot questions.

Q1. Creat a function named '**CountSDigitNum**' that counts the number of **single digit numbers** in a given **row vector**, 'vec', that contains positive integers.

```
function out = CountSDigitNum(vec)
```

Q2. Creat a function named '**CountSDigitNumNew**' that counts the number of **single digit numbers** in a given array 'in_array', which is **either scalar, vector or matrix**. Note that 'in_array' contains positive integers.

```
function out = CountSDigitNumNew (in_array)
```

Q3. Creat a function named '**SumEven**' that **sums all even numbers** in a given array 'in_array', which is either scalar, vector or matrix. 'in_array' contains integer values.

```
function out = SumEven(in_array)
```

Q4. Creat a function named '**EvenArr**' that **sums** and **counts** all even numbers in a given array 'in_arr', which is either scalar, vector or matrix. '**c_in**': count and '**s_in**': sum

```
function [c_in, s_in] = EvenArr (in_arr)
```

Q5. Creat a function named '**PosArr**' that sums, counts, and find their locations of (linear index) all positive numbers in a given array 'in_arr'. '**c_in**': count, '**s_in**': sum, and '**l_in**': liner index

```
function [c_in, s_in, l_in] = PosArr (in_arr)
```

Q6. Creat a function named '**PosArrNew'** that sums, counts, **or** find their locations (linear index) of all positive numbers in a given array 'in_arr' **depending on 'opt'. 'opt'** takes 'sum', 'count', and 'loc' to select its operation.

```
function out = PosArrNew(in_arr, opt)
```

Q7. Creat a function named '**MZ_RL**' that move all zeros in each row in 'in_arr' **all the way to the front of the correponding row**. The order of the remaining non-zero elements in each row should be preserved. A resulting matrix is assigned to 'out'. 'in_arr' is a matrix.

```
function out = MZ_RL (in_arr)




end

function row_new = MoveZeroRLVec(row)

row_new = zeros(1, numel(row));
lg_vec = row == 0;
num = sum(lg_vec);
row_new(num+1:end) = row(~lg_vec);

end
```