Array Sorting:

```matlab
n=input('Enter the size of the array');
for i=1:n

        A(i)=input('Enter the element');
  end

for i=1:n-1
    for j=1:n-1
        if(A(j)>A(j+1))
            t=A(j);
            A(j)=A(j+1);
            A(j+1)=t;
        end
    end

end
```

Matrix Creation:

```matlab
m=input('Enter the row size');
n=input('Enter the column size');
fprintf('Enter the matrix elements one by one\n');
for i=1:m
    for j=1:n
        A(i,j)=input('Enter the element');
    end
end
fprintf('Created matrix is\n');
for i=1:m
    for j=1:n
        fprintf('%d\t',A(i,j));
    end
    fprintf('\n');
end
```

Vector /Array display:

```matlab
a=[1 2 3 4 5 6 7];
[m n]=size(a);
for i=1:n
    disp(a(i))
end
```

Nested Function:

```matlab
function ex1
ex2
```

```matlab
function ex2
x=10;
end
x=x+1;
disp(x)
end


function [x1,x2] = quadratic2(a,b,c)
global d;
function disc  % nested function
d = sqrt(b^2 - 4*a*c);
end    % end of function disc

disc;
x1 = (-b + d) / (2*a);
x2 = (-b - d) / (2*a);
end    % end of function quadratic2
```

Factorial using Recursion:

```matlab
function result=factr(n)
if(n==0)
    return=1;
else
    result=n*factr(n-1);
end
```

Search element and return index:

```matlab
function idx = findSqrRootIndex(target,arrayToSearch)

if target < 0
    return
end

for idx = 1:length(arrayToSearch)
    if arrayToSearch(idx) == sqrt(target)
        return
    end
end
```