Homework #2

Due Date: 02/10/2020 (11:59 PM)

Note: This assignment MUST be uploaded on Blackboard as a single file (pdf document)

```
1. What are the outputs of the following code
                                                    2. What are the outputs of the following code
  fragment?
                                                       fragment?
    a=5; b=-3; c=4; d=7;
                                                         a=4; b=3; c=-2;
    x=(a>b) && (c>=d);
                                                         x=a+c/2+b;
    y=(\sim(a>d)) || (b<=c);
                                                         y=a+c/(2+b);
    z=(a>b) && (b>c) && (c>d);
                                                         z=(a+c)/2+b;
    w=(a<=b) || (b>d) || (c<=b);
                                                         w=(a+c)/(2+b);
                                                         disp([x,y,z,w]);
    disp([x,y,z,w]);
3. What are the outputs of the following code
                                                    4. What is the output of the following code
  fragment?
                                                       fragment?
    x=-3: y=8:
                                                         f=1;
    while (x<4 && y>0)
                                                         num=6;
                                                         for m=num: -1:1
      y=y-2;
      x = x + 3;
                                                           f=f*m:
    end
                                                         end
                                                         disp(f);
    disp([x,y]);
5. What is the output of the following code
                                                    6. What is the output of the following code
  fragment?
                                                       fragment if the user entered: (a) 1679 and (b)
                                                       32 ?
    V=[3,-2,5,4,7,-1,13];
                                                         m=0:
                                                         num=input('Enter a positive number=');
    for m=1:length(V)
      s=s+V(m);
                                                         while(num>0)
    end
                                                           num = fix(num/10);
                                                           m=m+1;
    disp(s);
                                                         end
                                                         disp(m);
7. What is the output of the following code
                                                    8. What is the output of the following code
  fragment?
                                                       fragment?
    A=[-5,2,11,9,-3,6,8];
                                                         B=[0,-2,4;1,2,5;12,-5,3;8,-7,11];
    size=length(A);
                                                         for m=1:3
    h=fix(size/2);
                                                           for n=1:4
    for m=1:h
                                                             if((m==n) || (m+n==4))
      var=A(m);
                                                               B(n,m) = -1;
      A(m)=A(size-m+1);
                                                             end
      A(size-m+1)=var;
                                                           end
    end
                                                         end
    disp(A);
                                                         disp(B)
```

```
9. What are the outputs of the following code
fragment?

num=[-3,12,2,5,-11,7];
temp1=num(1);
temp2=num(1);
for k=1:6
   if(temp1<=num(k))
      temp1=num(k);
   elseif(temp2>=num(k))
      temp2=num(k);
   end
   end
   disp([temp1, temp2]);
```

10. What is the output of the following code fragment?

```
 \begin{aligned} &A = [0,5,4,2,7,-11,9]; \\ &B = [-5,1,0,-3,6,1,4]; \\ &col = 7; \\ &for \ k = 1:col \\ &C(k) = A(k) + B(col - k + 1); \\ &end \\ &disp(C); \end{aligned}
```

11. What are the outputs of the following code fragment?

```
a=-5; b=8;

if(a>=b)

tmp=b;

b=a;

a=tmp;

else

tmp=a;

a=b;

b=tmp;

end

disp([a, b]);
```

12. What is the output of the following code fragment?

```
A=[-3,1,1; 5,-2,6; -7,8,-4];
Nrows=3;
Mcolumns=3;
for m=1: Mcolumns
    for n=1: Nrows
        temp=m+n;
        ratio=fix(temp/2);
        diff=temp-2*ratio;
        if(diff~=0)
            A(n,m)=-A(n,m);
        end
    end
end
disp(A);
```