Quiz 1 (A)

Problem 1)

x(1,:)

x(5,4)

x(:,2)

x(3,2:6)

x(2:3,2:3)

Problem 2)

```
clear
Cnt = 0;
Total = 0;
while  Cnt < 5
        Cnt = Cnt +1;
        Total = Total + Cnt;
        fprintf('Cnt %d Total %d \n',Cnt,Total)
end
```

Problem 3)

There are different ways to do this. Here is one method.

```
Num = 0;
for ii = 1:20
    if floor(ii/3) == ii/3
        num = num + 1;
    end
end
```

Problem 4)

Simpson's method.

```
NInterval = 100;
Endpoints = linspace(A,B.NInterval+1);
DeltaX = EndPoints(2) – EndPoints(1);
MidPoints = EndPoints(1:end-1)+DeltaX/2;
F = @(x)cos(x);
IntResult = 0;
IntResultArray = zeros(NInterval,1);
for nn = 1:NInterval
    Area = F(MidPoints(nn))*DeltaX;
    IntResult = IntResult + Area;
    IntResultArray = IntResult;
end
```

Problem 5)

```
X = linspace(0,6,100);
Y = cos(X);
figure
plot(X,Y)
xlabel('X');
ylabel('cos(X)');
```

Problem 6)

```
f = @(X) X.^2;
```

```
function [Out] = f(X)
        Out = X.^2;
end
```

Problem 7)

```
A = linspace(1,3,3)
   A =    1    2    3
B = (0:2:6)
    B =    0    2    4    6
[C  D] = meshgrid( (1:2), (2:4))
    C =    1    2
           1    2
           1    2
     D =   2    2
           3    3
           4    4
```

Problem 8)

```
ans =
        8         9        10
ans =
                  9        10
ans =
                           10
```

Problem 9)

5

Problem 10)

```
switch X
        case X == 1
            fprintf('X=1\n')
        case X == 2
            fprintf('X=2\n')
        otherwise
            fprintf('Invalid X\n')
end
```