Review on Exam 2

$2 \times 3 \qquad 3 \times 2$

$$\begin{bmatrix} 4 & 5 & 6 \\ 7 & 8 & 9 \end{bmatrix} \times \begin{bmatrix} 1 & 4 \\ 2 & 5 \\ 3 & 6 \end{bmatrix} \quad \checkmark$$

$$\begin{bmatrix} 0 & 2 \\ 1 & 3 \end{bmatrix} \quad \times$$

$2 \times (3) \neq (2) \times 2$

① Tell if you can do Matrix multiplication or element-wise multiplication

② Be able to do these multiplications

$$\begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 7 & 8 & 9 \end{bmatrix} \times \begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}.$$

$$a_1x + b_1y + c_1z = b_1$$
$$a_2x + b_2y + c_2z = b_2$$
$$a_3x + b_3y + c_3z = b_3$$

$\Rightarrow Ax = b$

$$A = \begin{bmatrix} a_1 & b_1 & c_1 \\ a_2 & b_2 & c_2 \\ a_3 & b_3 & c_3 \end{bmatrix}$$

$$b = \begin{bmatrix} b_1 \\ b_2 \\ b_3 \end{bmatrix}$$

$x = inv(A) * b$

or $x = A \backslash b;$

0 X

$$A = \begin{bmatrix} 1 & 2 & 3 \\ -4 & 5 & -6 \\ -7 & 8 & 9 \end{bmatrix}$$

mean( )

B = mean(A) [0 0 0]

C = mean(B)

For loop. find summation of non-negatives

for r = 1:3

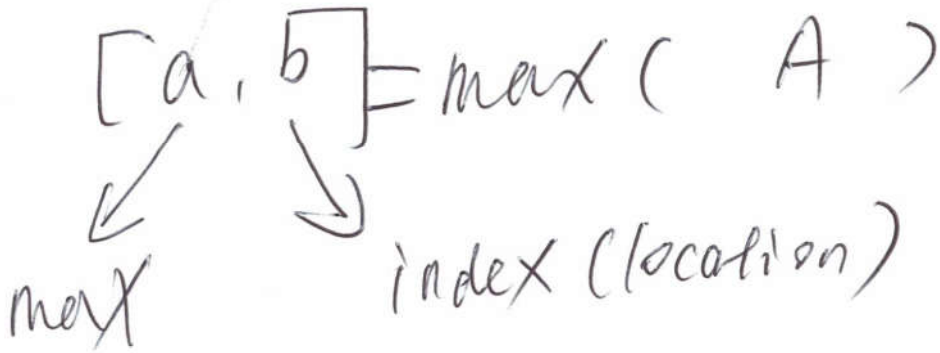
for c = 1:3

> 1 ==

end

end

(3)



Find the max value use 'For loops'

```
list = [6  0  -2  9];
la = list(1)
la = 0;
for i = 1: length(list)
    if la < list(i)
        la = list(i);
    end
end
```

max(·)

Extract the positive elements of x into a new array y.

```
x=[8 -4 -5 3 0 1];
k=1;
for i=1:length(x)
    if(x(i)>0
        y(k)=x(i)
    end
    k=k+1
end
```

1
4
6

y(1)=x(1)

y(4)=x(4)

y: 8 0 0 4 0 1 ✗

Use 'Break' to quit the loop earlier.

for

```
for i : length(x)
    if x(i) < 0
        fprintf('Done');
        break;
    end
end
```

break;

end

x = [1 2 3 -4 1 2 3 1 2 3 ...]

↳ Bad Data if any negative no.

infinite loop

Cursor in the Command Window

+ ctrl + C