



MATLAB MID



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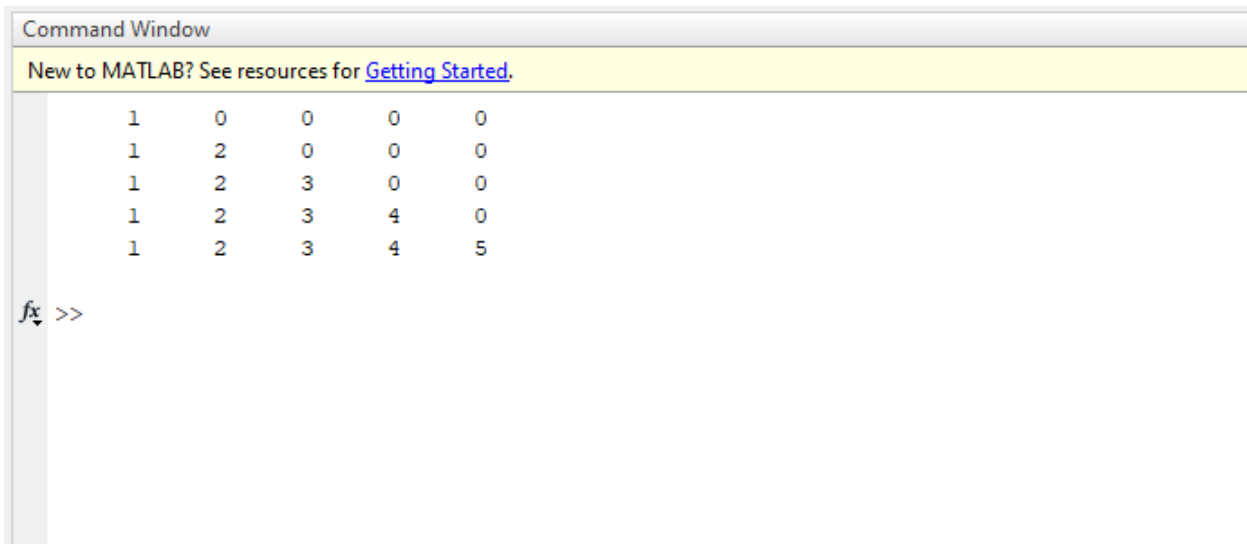
Question No#1:

Code :

```
clc
clear all

%n=input ('Enter Value of n ');
b=zeros(5,5);
for i=1:5
for j=1:i
matrix(i,j)=j;
end
end
disp(matrix)
```

output:



```
Command Window
New to MATLAB? See resources for Getting Started.

    1     0     0     0     0
    1     2     0     0     0
    1     2     3     0     0
    1     2     3     4     0
    1     2     3     4     5

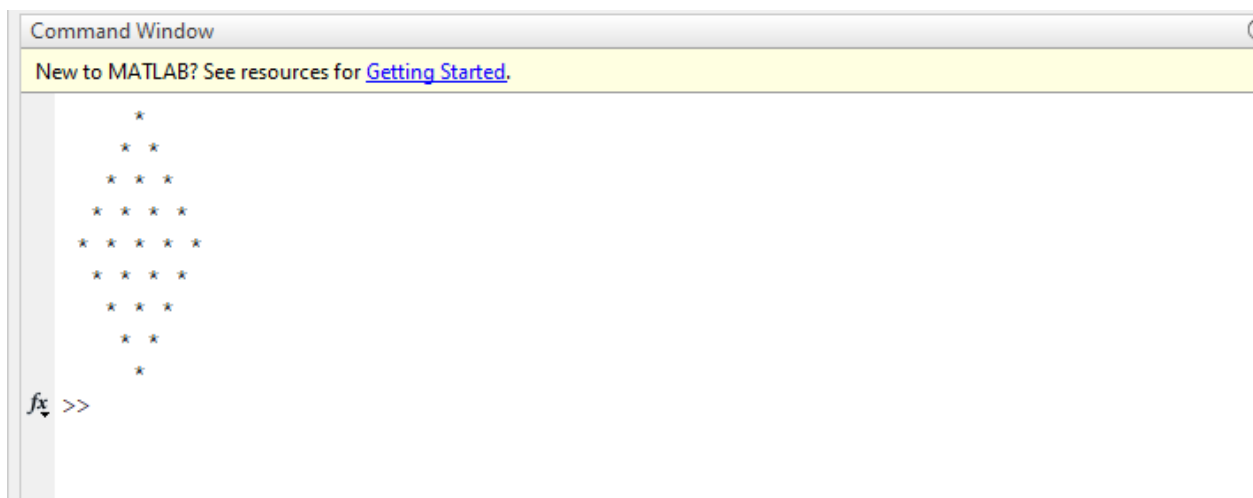
fx >>
```

Question No#2:

Code:

```
clc
clear all
for x=1:5
for j=4:-1:x
fprintf(' ');
end
for j=1:x
fprintf(' *');
end
fprintf('\n');
end
for x=1:4
for j=1:x
fprintf(' ');
end
for j=4:-1:x
fprintf(' *');
end
fprintf('\n');
end
```

OUTPUT:



The image shows a MATLAB Command Window. At the top, there is a yellow banner that says "New to MATLAB? See resources for [Getting Started](#)." Below the banner, the output of the code is displayed as a diamond-shaped pattern of asterisks. The pattern consists of 5 rows of asterisks, with the number of asterisks in each row decreasing from 5 in the first row to 1 in the fifth row. The asterisks are centered in each row. At the bottom left of the Command Window, the prompt "fx >>" is visible.

```
Command Window
New to MATLAB? See resources for Getting Started.

      *
     * *
    * * *
   * * * *
  * * * * *
 * * * * *
* * * * *
 * * * *
  * * *
   * *
    *

fx >>
```

Question No#3:

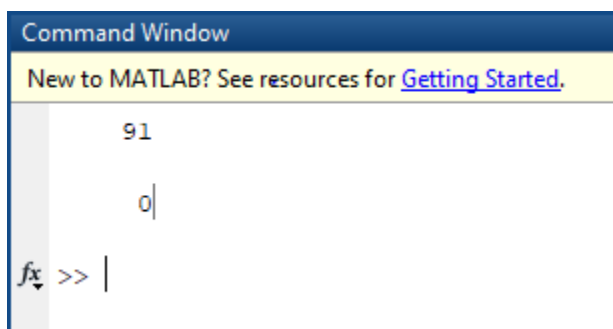
Code:

```
clc
clear all

A=[2 5 7 9; 3 4 5 0; 8 4 3 1; 77 55 48 91];
MAX=A(1,1);
for i=1:4
    for j=1:4
        if MAX<= A(i,j);
            MAX=A(i,j);
        end
    end
end
disp(MAX)

MIN=A(1,1);
for i=1:4
    for j=1:4
        if MIN > A(i,j);
            MIN =A(i,j);
        end
    end
end
disp(MIN)
```

output:



The screenshot shows the MATLAB Command Window. At the top, there is a blue header bar with the text "Command Window". Below it is a yellow banner with the text "New to MATLAB? See resources for [Getting Started.](#)". The main area of the window is white and displays the output of the code. The first output is "91" on a new line. The second output is "0" on a new line. At the bottom, there is a prompt "fx >> |" with a cursor.

Question No#4:

```

clc
clear all

a= input ('Enter the population of city A ');
b=input ('Enter the rate of increase ');

c= input ('Enter the population of city B ');
d=input ('Enter the rate of increase ');
year=0;
if (a < c && b > d)

while (a < c);

a = ((a / 100) * a) + a; n one year
c= ((c / 100) * c) + c;
year= year+1;

end

end
disp(year)

```

output:

```

Command Window
New to MATLAB? See resources for Getting Started.

Enter the population of city A 5000
Enter the rate of increase 10
Enter the population of city B 10000
Enter the rate of increase 15
0

fx >> |

```