



Department of Electrical and Computer Engineering

Lab Mid

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Question 3 :

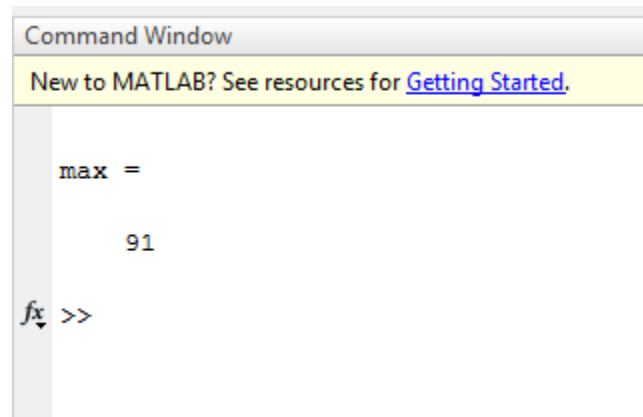
```
clc
clear all;
a = [2 5 7 9; 3 4 5 0; 8 4 3 1; 77 55 48 91];

max=a(1);
for p=2:numel(a)

    if a(p)>max
        max=a(p);
    end
end

max %the maximum value

min=a(1);
for q=2:numel(a)
    if a(q)<min
        min=a(q);
    end
end
```

Answer:A screenshot of the MATLAB Command Window. At the top, there is a 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 shows the output of the code: "max =" followed by "91" on the next line. At the bottom, there is a prompt "fx >>" with a small cursor icon.**Question 2 :**

```
clc
clear all;
for i=1:2:9
    for l=9:-2:i
        fprintf(' ')
    end

    for j=1:i
        fprintf('*')
    end
    fprintf('\n')
end
for i=9:-2:1
    for l=i:2:9
```

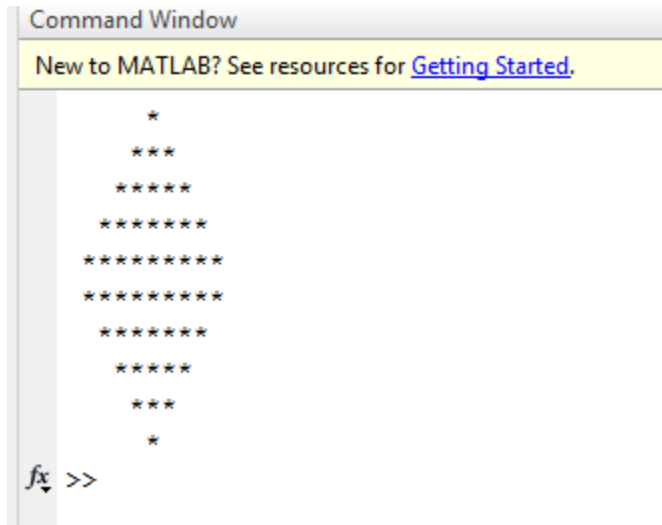
```

        fprintf(' ')
    end

    for j=i:-1:1
        fprintf('*')
    end
    fprintf('\n')
end

```

Answer:



The screenshot shows the MATLAB Command Window with a yellow banner at the top that reads "New to MATLAB? See resources for [Getting Started.](#)". Below the banner, a star pattern is displayed in the command window. The pattern consists of 11 lines of stars, forming a symmetric, hourglass-like shape. The first line has 1 star, the second has 3, the third has 5, the fourth has 7, the fifth has 9, the sixth has 11, the seventh has 9, the eighth has 7, the ninth has 5, the tenth has 3, and the eleventh has 1 star. At the bottom left of the command window, the prompt "fx >>" is visible.

Question 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 ')
count_years=0;
while a < b

    a = a +( a * (b /100) );
    c = c +( c * (d /100) );
    count_years=count_years+1;
end
disp ('count_years')

```

Answer:

Enter the population of city A 12

a =

12

Enter the rate of increase 20

b =

20

Enter the population of city B 12

c =

12

Enter the rate of increase 20

d =

20

count_years

Question 5 :

```
function print_num_pattern(num1,num2)
{
    printf(num1);
    while x!=num1

    if x>0
        x=num2-num1
```

```

        printf(x);
        num2=x;
        num1=num2;
    end
    if x<0
        x=num1+num2;
        printf(x);
        num1=x;
        num2 =num1;
    end

    end

}

```

Q1:

```

1 -   clc
2 -   clear all
3
4 -   %n=input ('Enter Value of n ');
5 -   b=zeros(5,5);
6 -   for i=1:5
7 -       for j=1:i
8 -           matrix(i,j)=j;
9 -       end
10 -    end
11 -    disp(matrix)

```

Command Window

```

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

```

f1 >>