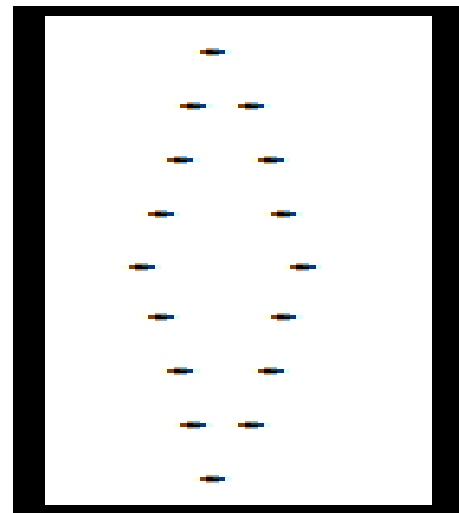
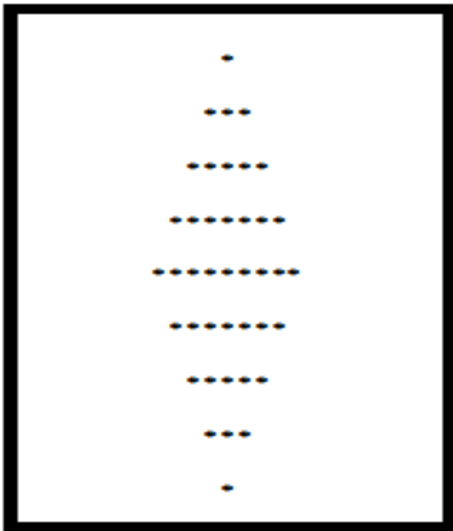


# MATLAB ASSIGNMENT

The codes should be generic, so the diamonds can have the height and width as required. The diamonds shown in this file are generated for the value of 5.



## Diamond 1:

```
function [ output ] = stars(dia)

str= [];

for i=1:1:dia

    for j=1:1:dia-i

        str= [str, ' '];

    end

    for k=2:1:2*i

        str=[str, '*'];

    end

    str=[str char(13)];

end

for i=dia-1:-1:1

    for j=1:1:dia-i

        str=[str, ' '];

    end

    for k=i*2:-1:2

        str=[str, '*']

    end

    str= [str, char (13)]

end

disp (str)

end
```

## Diamond 2:

```
function [output] = hollow (diamond)

str = [];
x = 1;

for i = 1:1:diamond
    for j = 1:1:diamond-i
        str = [str, ' '];
    end

    str = [str, '*'];

    for k = 2:1:(i-1)*2
        str = [str, ' '];
    end

    if (i>1)
        str = [str, '*'];
    end

    str = [str, char(13)];
end

for i = diamond-1:-1:1
    for j = 1:1:diamond-i
        str = [str, ' '];
    end

    str = [str, '*'];

    for k = 4:1:(i*2)
        str = [str, ' '];
    end

    if (i>1)
        str = [str, '*'];
    end

    str = [str, char(13)];

end

disp (str)

end
```