

```

close all;
clear;
clc;

r = 2;

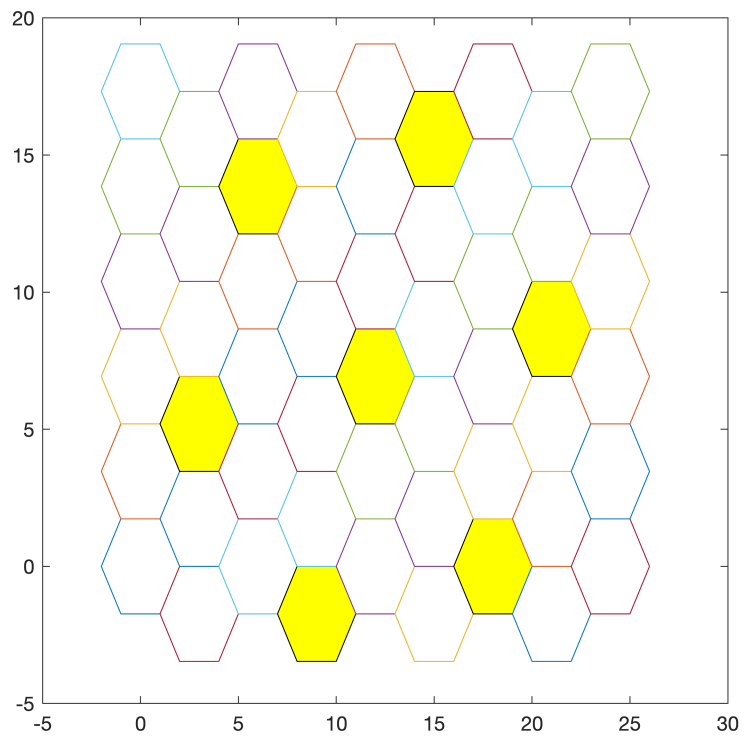
angle = 0:pi/3:2*pi;

x=r*cos(angle);
y=r*sin(angle);
%plot(x,y);

for i=0:8
    x1 = (r+r/2) * i;
    if(rem(i,2)==0)
        y1=0;
    else
        y1 = -r*sqrt(3)/2;
    end
    for j=0:5
        a = x1 + x;
        b = y1 + j*2*r*sqrt(3)/2 + y;
        plot(a,b);

        if i==4 && j==2
            fill(a, b, 'y');
        elseif i==2 && j==4
            fill(a, b, 'y');
        elseif i==5 && j==5
            fill(a, b, 'y');
        elseif i==7 && j==3
            fill(a, b, 'y');
        elseif i==6 && j==0
            fill(a, b, 'y');
        elseif i==3 && j==0
            fill(a, b, 'y');
            m1=mean(a);
            n1=mean(b);
        elseif i==1 && j==2
            fill(a, b, 'y');
            m2=mean(a);
            n2=mean(b);
        end
        axis square;
        hold on;
    end
end
end

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N= 2*2 + 1*1 + 2*1;
Q= sqrt(3*N)
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Q = 4.5826

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f1= (m2-m1);
f2= (n2-n1);

D= sqrt(f1*f1 + f2*f2);
D/r
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ans = 4.5826