

תשובות לתרגול 2 בשימושי מחשב

הפתרונות נכתבו בידי סטודנט בקורס. השימוש בהם על אחריות המשתמש בלבד!!!

Answer for first MatLab question

```
A=rand(100);
s1=0; s2=0;
for i=1:100
    for j=1:100
        if (A(i,j)>=0 && A(i,j)<=0.3)
            s1=s1+1;
        end
        a=floor(10*A(i,j));
        b=floor(100*A(i,j))-10*a;
        c=floor(1000*A(i,j))-100*a-10*b;
        d=floor(10000*A(i,j))-1000*a-100*b-10*c;
        if (a==3 || b==3 || c==3 || d==3)
            s2=s2+1;
        end
    end
end
s1
s2
```

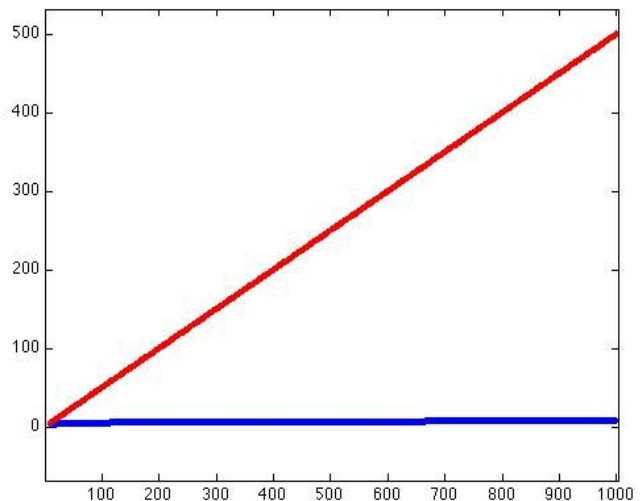
Answer for second MatLab question

```
%function f1
function [ s1 ] = f1( N )
s1=0;
for i=1:N
    s1=s1+1/i;
end
end

%function f2
function [ s2 ] = f2( N )
s2=0;
for i=1:N
    s2=s2+(sin(i))^2;
end
end

%printing graphs
%blue will be used for f1
and red for f2
a=[]; b=[];
for i=10:1000
    q1=f1(i);
    q2=f2(i);
    a=[a;[i,q1]];
    b=[b;[i,q2]];
end
plot(a(:,1),a(:,2),'b.',...
b(:,1),b(:,2),'r.')

```



Answer to MatLab question number 4

```
function [ v I ] = questionfour( A )
a=0; b=0; c=0;
for i=1:size(A,1)
    a=a+A(i,1)*A(i,2);
    b=b+A(i,1)*A(i,3);
    c=c+A(i,1)*A(i,4);
end
v=[a,b,c];
I=zeros(3);
for i=1:size(A,1)
    I(1,1)=I(1,1)+A(i,1)*A(i,2)*A(i,2);
    I(2,1)=I(2,1)+A(i,1)*A(i,2)*A(i,3);
    I(3,1)=I(3,1)+A(i,1)*A(i,2)*A(i,4);
    I(1,2)=I(1,2)+A(i,1)*A(i,3)*A(i,2);
    I(2,2)=I(2,2)+A(i,1)*A(i,3)*A(i,3);
    I(3,2)=I(3,2)+A(i,1)*A(i,3)*A(i,4);
    I(1,3)=I(1,3)+A(i,1)*A(i,4)*A(i,2);
    I(2,3)=I(2,3)+A(i,1)*A(i,4)*A(i,3);
    I(3,3)=I(3,3)+A(i,1)*A(i,4)*A(i,4);
end
end
```