```matlab
clc
clear all
close all

% MATRIX_OPERATION
% ID 2017KUCP1011
% Name Ashish Uniyal

x= round(255*rand(3,3));
x
a=1;
c=x(2,2);
y=zeros(3,3);
while a<=3
  b=1;
  while b<=3
    if x(a,b)<=c
      y(a,b)=0;
    else
      y(a,b)=1;
    end;
    b=b+1;
  end;
  a=a+1;
end;
y(2,2)=c;
y
z=zeros(1,8);
z(1,1)=y(2,3);
z(1,2)=y(1,3);
z(1,3)=y(1,2);
z(1,4)=y(1,1);
z(1,5)=y(2,1);
z(1,6)=y(3,1);
z(1,7)=y(3,2);
z(1,8)=y(3,3);
z
w=zeros(1,8);
d=1;
while d<=8
  w(1,d)=(2^(d-1))*z(1,d);
  d=d+1;
end;
w
sum=0;
e=1;
while e<=8
  sum=sum+w(1,e);
  e=e+1;
end;
x(2,2)=sum;
x
```

```
x =

   246   244    36
    40   124   108
   248   204   234


y =

     1     1     0
     0   124     0
     1     1     1


z =

     0     0     1     1     0     1     1     1


w =

     0     0     4     8     0    32    64   128


x =

   246   244    36
    40   236   108
   248   204   234
```

Published with MATLAB® R2015a