```
close all; clear all; clc;
a = [1 -2 3;3 0 4;-8 9 -11]
diag_sum(a)
b = [1 -2 3;3 0 4;-8 9 11]
diag_sum(b)
c = [2 -2 3;3 0 4;-8 9 7]
diag_sum(c)
```

```
function [] = diag_sum( a )
sm = 'sum of the diagonal elements is smaller.';
l ='sum of the diagonal elements is larger.';
same ='sum of the diagonal elements is same.';
s = 0; b = 0;
for i = 1:size(a,1)
    for j = 1:size(a,2)
        if i == j
            s = s + a(i,j);
        else
            b = b + a(i,j);
        end
    end
end
if s > b
    disp(l)
else if s < b
        disp(sm)
    else disp(same)
    end
end
end
```

Command Window

```
a =

     1    -2     3
     3     0     4
    -8     9   -11

sum of the diagonal elements is smaller.

b =

     1    -2     3
     3     0     4
    -8     9    11

sum of the diagonal elements is larger.

c =

     2    -2     3
     3     0     4
    -8     9     7

sum of the diagonal elements is same.
fx >>
```