

```
% gda00_13
% avoiding loops
% supports Section I.5.1

% define a matrix M
M = [ [1, 4, 7]', [2, 5, 8]', [3, 6, 9]'];

% extract diagonal
a = diag(M);
M
```

M =

1	2	3
4	5	6
7	8	9

a

a =

1
5
9

```
% reverse order of rows
N = fliplr(M);
M
```

M =

1	2	3
4	5	6
7	8	9

N

N =

3	2	1
6	5	4
9	8	7

```
% another way of reversing order of rows
N = M(:,end:-1:1);
M
```

M =

1	2	3
4	5	6
7	8	9

N

N =

3	2	1
6	5	4
9	8	7

```
% define vector a
a = [ 1, 2, 1, 4, 3, 2, 6, 4, 9, 2, 1, 4 ]';

% clip to 6
b=a;
b(find(a>6))=6;
[a, b]
```

ans =

1	1
2	2
1	1
4	4
3	3
2	2
6	6
4	4
9	6
2	2

```
% alternative way to clip to 6
b = a.*(a<6)+6.*(a>=6);
[a, b]
```

ans =

1	1
2	2
1	1
4	4
3	3
2	2
6	6
4	4
9	6
2	2