Coding Challenge # 1

```
clear all
B = [3,2];

A = [1 2 3 6;
     4 5 6 8;
     7 8 9 10];

 [rows, col] = size(A);

 enlarge_matrix = zeros(rows*B(1),col*B(2));

 for i = 1:rows
    for j = 1: col
        enlarge_matrix( ((i-1) * B(1)) +1: i * B(1),  ((j-1) * B(2)) +1: j *
B(2)) = A(i,j);
    end
 end
```

Coding Challenge # 2

```
clear all
n = input('Enter a number');

x = [];
for i=1:n
    x((i*i - length(x) - i)+1 :i*i - length(x)) = i;
end
```

Coding Challenge # 3

```
M = input('Enter the input square matrix');

L = length(M);

found = 0;
for i =1: length(M)
   [a1 b1] = ismember(M(i,1:L),M(i,1)) ;
   [a2 b2] = ismember(M(1:L,i),M(1,i)) ;

   if sum(b1) == L | sum(b2) == L
       found = 1;
       break;
   end
 end

if found == 1
   disp('I found it');
else
    disp('I did not found it');
end
```

Coding Challenge # 4

```
M = input('\n Enter the first vector\n');

N = input('\n Enter the second vector\n');
A = [];
for i=1:length(M)
    if M(i)>N(i)

        A(length(A)+1: length(A)+abs(M(i)-N(i))+1) = M(i):-1:N(i)
    else
        A(length(A)+1: length(A)+abs(M(i)-N(i))+1) = M(i):N(i);
    end
end
A
```