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import numpy as np
import scipy
from scipy.linalg import eigvals

n = 20
M = np.zeros((n,n),dtype = 'int')
Quedesun = np.zeros((n,n),dtype='int')
for x in range(n):
    for y in range(n):
        Quedesun[x,y] = 1
for y in range(n):
    M[y,0] = 1
for x in range(1,n):
    for y in range(n):
        if (y+1) % (x+1) == 0:
            M[y,x] = x+1
print('M = \n',M)
print('Quedesun = \n',Quedesun)
res1 = M.dot(Quedesun)
print('res1 = ',res1)
for k in range(n):
    print(k, ' --> ',res1[k,k])

```