2018 Numerical Analysis Lab #1

Due Oct 1 to class

1. A matrix H(i,j) = cos(i*0.7+ j + 2)/(i+j-1), 1<=i, j, <=N.

For N = 10, write a Fortran program to find the maximum column sum, I.e, for each column compute the sum of N entries and out of those N columns find the maximum.

cos function is in radian.

2. A prime number is a number that is divisible by 1 and itself only. Write a Fortran program to

a) Find the all primes less than 300.
b) 2 is the first prime. Find the 300-th prime number.
c) Find the number of primes less than 10,000.

To check I divides j, check (j/i)*i = j. Also, you can check mod(j, I) = 0 or not.