

HACETTEPE UNIVERSITY ELECTRICAL AND ELECTRONICS ENGINEERING ELE338 MICROPROCESSOR ARCHITECTURE AND PROGRAMMING LAB.

EXPERIMENTAL WORK 1 2020-2021 SPRING

Student

Name: Egemen Can

Surname: Ayduğan

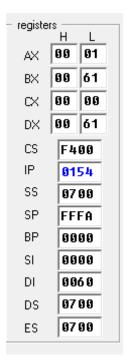
ID: 21728036

Date: 29.03.2021

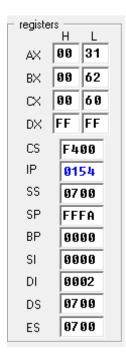
EMU 8086 CODE

```
org 100h
MOV BX,24
MOV CX, BX
SUB CX,0002h
MOV DI,0001h
TRY:
INC DI
MOV AX, BX
MOV DX,0
DIV DI
CMP DX,0
JE F1
LOOP TRY
MOV DX, BX
JMP FINISH
F1:
MOV DX, OFFFFh
FINISH:
ret
end
```

Results:



I put the value in BX Register. BX = 97d = 61h This is a prime number.



I put the value in BX Register. BX = 98d = 62h This is not a prime number.

Comment:

When checking the prime number, I divided the values below the number one by one. I made a comparison with the CMP instruction 0, and if it is the same number, ZF = 1. Then, when Je command ZF = 1, I finished the code. If ZF is never 0 then I set DX to 09999h.