Experiment 1 – Registers and Conditional Expressions

2020-2021 Spring

Work(17:00):

Write an assembly code that finds if a 16 bit number in AX register is a Prime number.

Please indicate the line where you load your testing value to AX with comments. <u>Your solution should work for any input we may enter.</u>. Show your results with at least 1 prime and 1 non-prime numbers in your report.

When the program ends <u>the result should be in DX register.</u>

(a) If the number <u>is a Prime number</u> that number will be held in DX register.

(b) If the number <u>is not a Prime number</u> result in DX should be FFFFh.

- Your program should terminate, no infinite loops can occur.

- You should not waste any iteration cycles, your loops must not iterate more than needed checks.