// This is a program to find whether a given number is prime or not

// Try yourself with the program which checks the condition “Neither Prime Nor Composite” too

PRINT MACRO ARGS

MOV DX,OFFSET ARGS

MOV AX,0900H

INT 21H

ENDM

DATA SEGMENT

MSG1 DB 0DH, 0AH,"ENTER A NUMBER TO BE CHECKED WHETHER IT IS PRIME OR NOT:$"

MSG2 DB 0DH, 0AH,"THE NUMBER IS PRIME $"

MSG3 DB 0DH, 0AH,"THE NUMBER IS NOT PRIME $"

N1 DW 00H

DATA ENDS

CODE SEGMENT

ASSUME CS:CODE,DS:DATA

START:MOV AX,DATA

MOV DS,AX

PRINT MSG1

CALL READ

MOV BX, 0001H

GO:MOV AX,CX

INC BL

DIV BL

CMP AH,00H

JNZ L1

INC N1

L1:CMP BX,CX

JNZ GO

CMP N1,01H

JG L3

PRINT MSG2

JMP EXIT

L3:PRINT MSG3

EXIT: MOV AH,4CH

INT 21H

CODE ENDS

END START