

Name:

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COE 205, Term 022
Computer Organization & Assembly Programming

Quiz# 4

Date: Tuesday, Apr. 15, 2003

Q1. Analyze the 8086 assembly program given below and determine what it is doing. Determine exactly what the program will output, assuming that the input entered is 62.

```
.MODEL SMALL
.STACK 32
.DATA
    CR      EQU    13
    LF      EQU    10
    msg1    DB     'Enter a 2-digit decimal number (00->99):','$'
    msg2    DB     CR,LF, 'Result= '
    result  DB     3 dup(?),'$'
.CODE
    MOV AX, @DATA
    MOV DS, AX
    MOV DX, offset msg1
    MOV AH, 9h
    INT 21H
    MOV AH, 1h
    INT 21H
    SUB AL, '0'
    MOV BL, 10
    MUL BL
    MOV CL, AL
    MOV AH, 1h
    INT 21H
    SUB AL, '0'
    ADD AL, CL
    MOV AH, 0
    ADD AX, AX
    DIV BL
    ADD AH, '0'
    MOV result+2, AH
    MOV AH, 0
    DIV BL
    ADD AH, '0'
    MOV result+1, AH
    MOV AH, 0
    DIV BL
    ADD AH, '0'
    MOV result, AH
    MOV DX, offset msg2
    MOV AH, 9h
    INT 21H
    MOV AX, 4C00h
    INT 21H
    END
```

