Assignment 11

**4.10**

2. Write a program with a loop and indexed addressing that exchanges every pair of values in an array

with an even number of elements. Therefore, item i will exchange with item i+1, and item i+2 will

exchange with item i+3, and so on

ExitProcess proto

WriteInt64 proto

Crlf proto

.data

myArray QWORD 1,2,3,4,56

.code

mainproc

mov rcx,6

mov rbx, 0

mov r12,8

LOOP1:

MOV rax,rbx

MUL r12

MOV r11, rax

MOV rax, myArray[r11]

CALL WriteInt64

Onc RBX

LOOP LOOP1

Call Crlf

mov rcx, 3

mov rbx, 0

mov r12, 8

LOOP2:

MOV rax, rbx

MUL r12

MOV r11, rax

MOV rdi, myArray[r11]

MOV rbp, r11

ADD rbp, 8

MOV r14, myArray[r11]

MOV r15, myArray[rbp]

MOV myArray[r11], r15

MOV myArray[rbp], r14

ADD rbx, 2

LOOP LOOP2

mov rcx, 6

mov rbx, 0

mov r12, 8

LOOP3:

MOV rax, rbx

MUL r12

MOV r11, rax

CALL WriteInt64

INC rbx

LOOP LOOP3

call ExitProcess

main ENDP

END