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Cosc 2150

Homework 5

1.)

Code:

#include "stdafx.h"

extern "C" int Result1(int a, int b);

extern "C" int Result2(int a, int b, int c);

extern "C" int Result3(int a, int b);

int main()

{

int a = 2;

int b = 1;

int c = 0;

c = Result1(a, b);

return 0;

}

.model flat, c

.code

Result1 proc

push ebp

move ebp, esp

mov eax,[ebp+8]

mov ebx,[ebp+12]

mov ecx,[ebp+16]

cmp eax,ecx

jl ifLess

jge ifMove

ifLess:

add eax, ecx

pop ebp

ret

ifMove:

sub eax, ecx

pop ebp

ret

Result1 enp

End

Output: a :2 b: 1 c: 1

2.)

Code:

#include "stdafx.h"

extern "C" int Result1(int a, int b);

extern "C" int Result2(int a, int b, int c);

extern "C" int Result3(int a, int b);

int main()

{

int a = 2;

int b = 1;

int c = 0;

c = Result1(a, b);

return 0;

}

.model flat, c

.code

Result2 proc

push ebp

move ebp, esp

mov eax,[ebp+8]

mov ebx,[ebp+12]

mov ecx,[ebp+16]

xor edx, edx

mov ecx, 6

cmp ecx,6

jg T

T:

cmp ecx,1

jl small

jpe cond

dec ecx

jmp W

ret

cond:

add eax, ebx

dec ecx

jmp T

ret

small:

pop ebp

ret

Result2 enp

End

Output: a: 0 b: 2 c: 6

3.)

Code:

#include "stdafx.h"

extern "C" int Result1(int a, int b);

extern "C" int Result2(int a, int b, int c);

extern "C" int Result3(int a, int b);

int main()

{

int a = 2;

int b = 1;

int c = 0;

c = Result1(a, b);

return 0;

}

.model flat, c

.code

Result3 proc

push ebp

move ebp, esp

mov eax,[ebp+8]

mov ebx,[ebp+12]

mov ecx,[ebp+16]

cmp eax,0

jl cond

cmp ecx, 2

jg cond

mov edx, ecx

add edx, 5

mov eax, edx

pop ebp

ret

cond:

mov eax, ecx

pop ebp

ret

Result2 enp

end

Output:

A: 1 B: 3 c: 3