CSC 3210
Computer Organization and Programming
Lab 6
Answer Sheet

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Lab 6(a)

Debug through each line of instructions.
Take screenshot that includes code and register window.
Record the register content.
and explain the register contents. (4 points)

Line number: 7,8,9
Instruction:

```
Xval SDWORD 26
Yval DWORD 30
Zval DWORD 40
```

Register values:

```
eax, 0000001A
ecx, 0000001E
edx, 00000028
```

Screenshot:

Explanation:

Initializing values for xval yval and zval and moving the values to eax, ecx, and edx registers.

Line number: 15

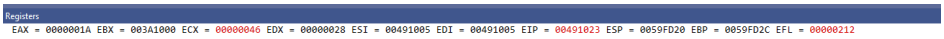
Instruction:

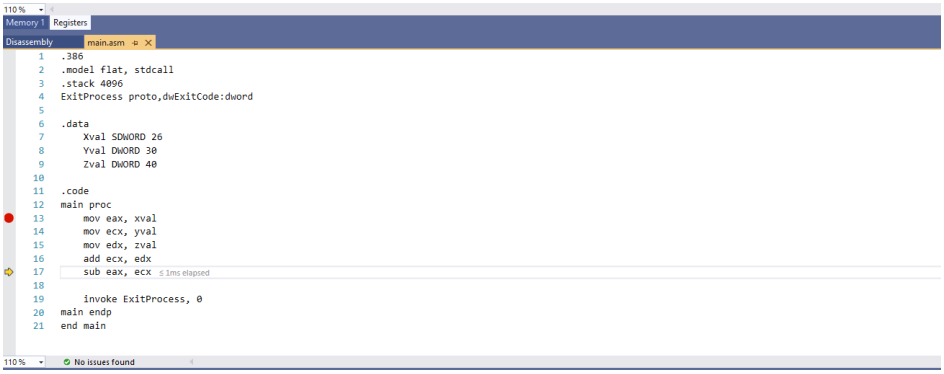
```
add ecx, edx
```

Register values:

```
ECX = 00000046
```

Screenshot:





Explanation:

The equation could be done in many ways. The order in which I felt comfortable with was to start with the parentheses so I did ecx + edx, which is yval and zval and store it at ecx, which then we can subtract from xval which is stored at eax.

Line number: 16

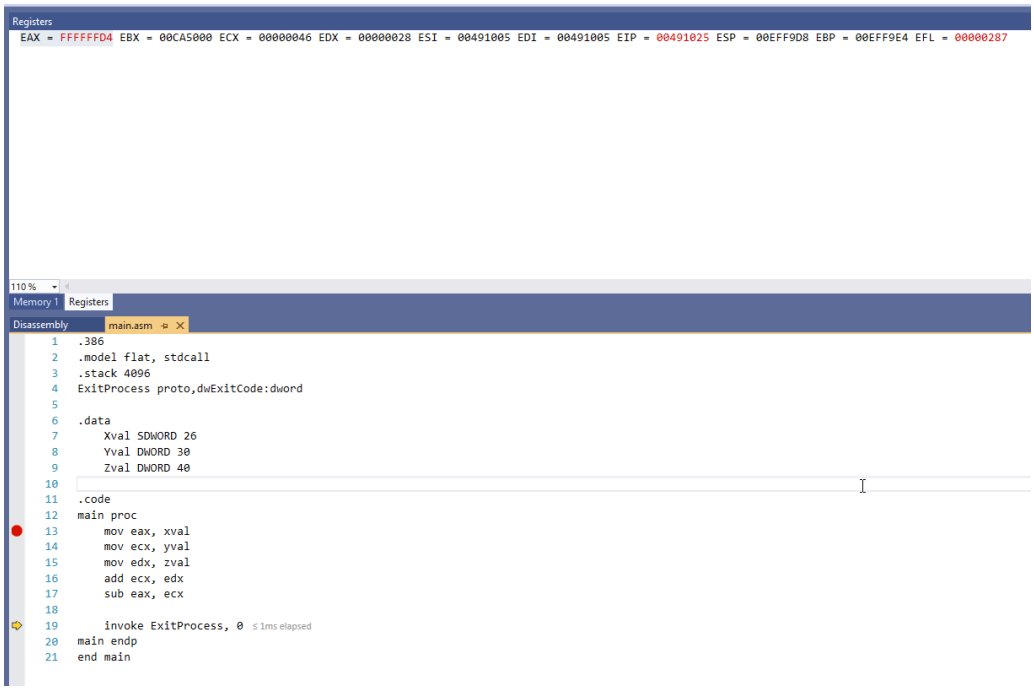
Instruction:

```
sub eax, ecx
```

Register values:

EAX = FFFFFFD4

Screenshot:



Explanation:

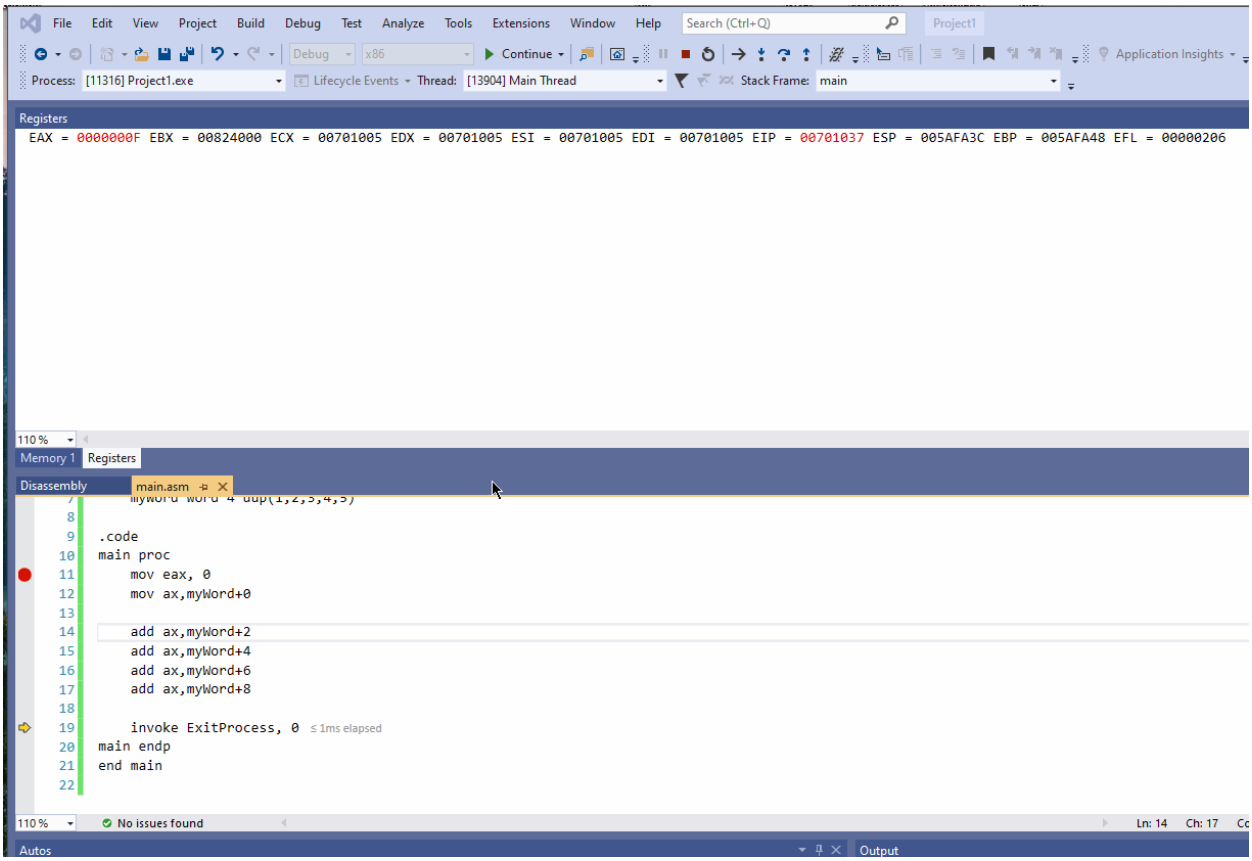
Subtract eax from ecx. Ecx holds the value for yval+zval, and it is being subtracted from xval finally stored at eax.

Lab 6(b)

(1) What is the total size of the myWord array? (1 Point)

The size of the array is 4.

(2) Debug the code until the 'invoke ExitProcess, 0'. Attach screenshot showing the content of AX register. (2 points)



Lab 6(c):

(1) What is the difference between symbolic constant and variables? (1 point)

Symbolic constant just represents a name, when a constant is initialized however, you cannot change its value.

(2) Debug the code until 'invoke ExitProcess, 0'. Attach the screenshot showing the content of al register. (2 points)