

Drag-and-drop the correct sequence number of the assembly code to form a program where 7 numbers in an array are added and stored in `eax` register. Note that your sequence must absolutely match the line numbers to the left-most column of the table. The answers for Lines 2, 3 and 5 have been provided. Complete the rest.

Line 1	<code>mov esi, array</code> ✖ <code>#lea esi, array#</code>
Line 2	<code>mov eax, 0</code>
Line 3	<code>mov ecx, 0</code>
Line 4	<code>sumLoop: add eax, [esi]</code> ✔
Line 5	<code>add esi, 4</code>
Line 6	<code>inc ecx</code> ✔
Line 7	<code>cmp ecx, 7</code> ✔
Line 8	<code>j1 sumLoop</code> ✔

`jnl sumLoop` `inc ecx` `dec ecx` `lea esi, array` `j1 sumLoop` `sumLoop: add eax, [esi]` `cmp ecx, 7` `mov esi, array`

Your answer is partially correct.

Drag-and-drop the correct arguments and/or instructions to the missing places in the following program segment to push a string onto a stack.

```
char myArray[MAX_SZ] = "Hello XJTU";

_asm {
    mov ecx, MAX_SZ-1
    mov esi, 0

    cycleIt :
        movzx eax, myArray[esi]
        push eax
        inc esi
        loop cycleIt
}
```

`loop` `asm` `push` `cycleIt` `esi` `movzx` `MAX_SZ` `[esi]` `inc` `char` `mov` `dec` `_asm` `0` `MAX_SZ-1` `jmp` `pop` `ecx`

Drag-and-drop the correct sequence number of the assembly code to form a program that sorts an array of 7 integers in an **ascending** order (Bubble Sort). Note that your sequence must absolutely match the line numbers to the left-most column of the table. Complete Lines 4, 7-10.

Line 1	<code>lea esi, array</code>
Line 2	<code>mov ecx, 7</code>
Line 3	<code>outerLoop: mov edx, ecx</code>
Line 4	<code>innerLoop: cmp edx, ecx</code> ✔
Line 5	<code>jz noExchange</code>
Line 6	<code>mov eax, [esi + ecx * 4 - 4]</code>
Line 7	<code>mov ebx, [esi + edx * 4]</code> ✖ <code>#mov ebx, [esi + edx * 4 - 4]#</code>
Line 8	<code>cmp ebx, eax</code> ✔
Line 9	<code>jnl noExchange</code> ✖ <code>#j1 noExchange#</code>
Line 10	<code>mov [esi + ecx * 4], ebx</code> ✖ <code>#mov [esi + ecx * 4 - 4], ebx#</code>
Line 11	<code>mov [esi + edx * 4 - 4], eax</code>
Line 12	<code>noExchange: dec edx</code>
Line 13	<code>jnz innerLoop</code>
Line 14	<code>loop outerLoop</code>

`mov [esi + ecx * 4 - 4], ebx` `cmp ebx, eax` `jnl noExchange` `j1 noExchange` `innerLoop: cmp edx, ecx` `mov ebx, [esi + edx * 4 - 4]` `mov ebx, [esi + edx * 4]` `mov [esi + ecx * 4], ebx`

Your answer is partially correct.

Drag-and-drop the correct arguments and/or instructions to the missing places for the following program that sums all the numbers in an array.

```
int arraySize = 5;  
int intArray[  ] = {12, 3, 7, 23, 9};  
int totalAmt =  ;
```

```
_asm(  
     edi,   
    mov ecx,   
    mov eax, totalAmt  
  
     :  
         eax, [edi]  
        add edi,   
         addTotalAmt  
  
    mov , eax  
)
```