

**A.**

When reading the instructions step by step,

```
mov 0x8(%ebp),%eax    //has integer i
mov 0xc(%ebp),%ecx    //has a variable called bp
lea (%eax,%eax,4),%eax //tells us to perform: (4*i) + i = 5i
add 0x4(%ecx, %eax,4), %eax    //tells us to perform: 20i + bp + 4
mov 0xb8(%ecx),%edx    //has a value of 184
```

It calls add and mov again with the values and then pops them,

```
add (%ecx),%edx
mov %edx, 0x8(%ecx, %eax, 4)
pop %ebp
```

Based on this observation, we take the formula and perform,

$$(184-4)/20 = 9$$

Thus giving us the value of  $CNT = 9$

**B.**

Based on the instructions we create the struct file,

```
typedef struct
{
    int idx;
    int x[4];
}STRUCT;
```