

1. In the C code below, some details of the for loop have been hidden. In its original form, the function was compiled to produce the assembly language that follows. Please fill out the underline part

```
int f4(short x[], int n)
{
    int i;
    int result = 1;
    for (i = n-1; i >= 0; i--)
        result = result * x[i];
    return result;
}
```

assembly code of f4

f4:

pushl %ebp

movl %esp, %ebp

subl \$24, %esp

movl \$1, -16(%ebp)

movl 12(%ebp), %eax

decl %eax

movl %eax, -12(%ebp)

jmp L21

L22:

movl -12(%ebp), %eax

sall %eax

addl 8(%ebp), %eax

movw (%eax), %ax

movswl %ax, %edx

movl -16(%ebp), %eax

imull %edx, %eax

movl %eax, -16(%ebp)

subl \$3, -12(%ebp)

L21:

cmpl \$0, -12(%ebp)

jle L22

movl -16(%ebp), %eax

leave

ret