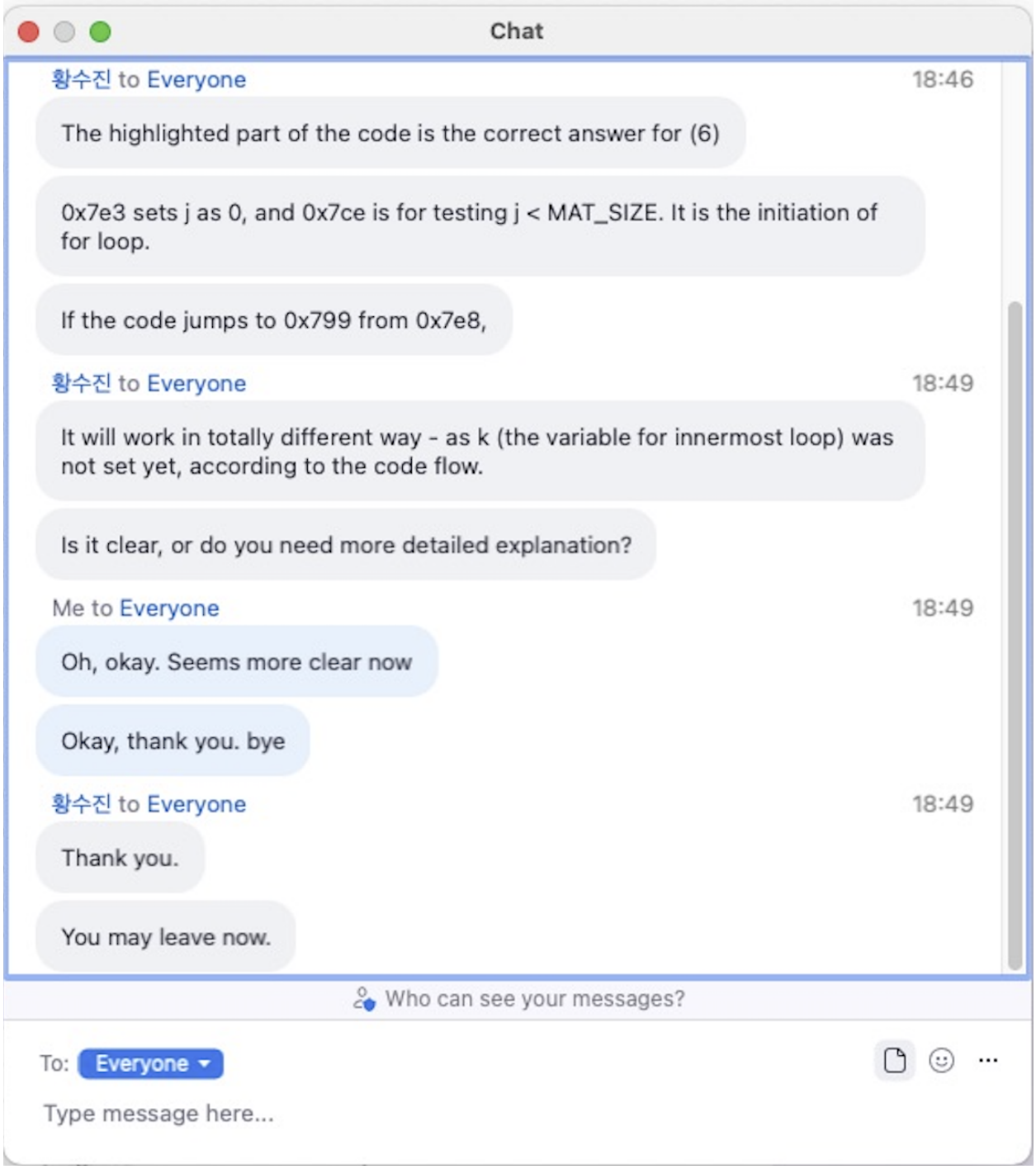
```
#init: %rdi = MAT_SIZE, %rsi = mat1, %rdx = mat2, %rcx = res_mat
#기본 할당: %r10 = k, %r12 = i, %rbp = j
0x000000000000078a <+0>:   push   %r12
0x000000000000078c <+2>:   push   %rbp
0x000000000000078d <+3>:   push   %rbx
0x000000000000078e <+4>:   mov    %rcx,%rax #setup return value
0x0000000000000791 <+7>:   mov    $0x0,%r12 #i = 0
0x0000000000000797 <+13>:  jmp    0x7de
0x0000000000000799 <+15>:  mov    %r12,%r9 #i
0x000000000000079c <+18>:  mov    %rbp,%rbx #j
0x000000000000079f <+21>:  lea    0x0(,%rbx,4),%r8 #4j
0x00000000000007a7 <+29>:  add    (%rax,%r9,8),%r8 #res_mat[i][j]
0x00000000000007ab <+33>:  mov    (%rsi,%r9,8),%rcx #save mat1[i]
0x00000000000007af <+37>:  mov    %r10,%r11 #k
0x00000000000007b2 <+40>:  mov    (%rdx,%r11,8),%r9 #mat2[k]
0x00000000000007b6 <+44>:  mov    (%r9,%rbx,4),%r9 #mat2[k][j]
0x00000000000007ba <+48>:  imul   (%rcx,%r11,4),%r9 #mat1[i][k]*mat2[k][j]
0x00000000000007bf <+53>:  add    %r9,(%r8) #res_mat[i][j] += (mat1[i][k]*mat2[k][j])
0x00000000000007c2 <+56>:  add    $0x1,%r10 #k++
0x00000000000007c6 <+60>:  cmp    %rdi,%r10 #test if k < MAT_SIZE
0x00000000000007c9 <+63>:  jl     0x799
0x00000000000007cb <+65>:  add    $0x1,%rbp #j++
0x00000000000007ce <+68>:  cmp    %rdi,%rbp #test if j < MAT_SIZE
0x00000000000007d0 <+70>:  jge    0x7da #end for loop (j)
0x00000000000007d2 <+72>:  mov    $0x0,%r10 #k = 0
0x00000000000007d8 <+78>:  jmp    0x7c6
0x00000000000007da <+80>:  add    $0x1,%r12
0x00000000000007de <+84>:  cmp    %rdi,%r12 #test if i < MAT_SIZE
0x00000000000007e1 <+87>:  jge    0x7ea #end for loop (i)
0x00000000000007e3 <+89>:  mov    $0x0,%rbp #j = 0
0x00000000000007e8 <+94>:  jmp    0x7ce
0x00000000000007ea <+96>:  pop %rbx
0x00000000000007eb <+97>:  pop %rbp
0x00000000000007ec <+98>:  pop %r12
0x00000000000007ee <+100>:   retq
```


Chat
황수진 to Everyone 18:46
The highlighted part of the code is the correct answer for (6)
0x7e3 sets j as 0, and 0x7ce is for testing j < MAT_SIZE. It is the initiation of for loop.
If the code jumps to 0x799 from 0x7e8,
황수진 to Everyone 18:49
It will work in totally different way - as k (the variable for innermost loop) was not set yet, according to the code flow.
Is it clear, or do you need more detailed explanation?
Me to Everyone 18:49
Oh, okay. Seems more clear now
Okay, thank you. bye
황수진 to Everyone 18:49
Thank you.
You may leave now.
Who can see your messages?
To: Everyone
Type message here...