The first part of the function sets int i equal to the argument, and then jumps to .L4, which compares i to 0, and if it is greater, it jumps to .L5 above, where the instructions inside of the for loop are executed. In the function it moves the value of return into a temporary register so that it can be multiplied with i and then it is moved back into its original register. Then the program subtracts 1 from i and moves into .L4 to compare the value to 0 again. Once i is equal to zero, the function moves the value of the return into %eax and then calls the ret function to return the %eax value.