1a. I believe that the first function would be faster since it would not spend time copying the integer to a new name.

1b. The first function will likely be more memory efficient since a reference to an integer will cost less memory than making a copy of an integer.

2a. The first function will likely be faster since the function does not need to copy the potentially long string into the name s.

2b. I expect the first function to use less memory since references do not copy the argument into a new location in memory.