

Use the interface of the `apstring` class to answer the following questions. Use the back of the paper if necessary to answer any of the questions. You will be graded on the COMPLETENESS of your answers.

1. What is the difference between the `apstring(const char * s);` constructor and the `apstring(const apstring & str);` constructor? Explain as completely as possible. Give examples of code from a client program that would be used to invoke each constructor.
2. What is the purpose of the `c_str` member function? For what specific task have we used this member function?
3. What is the difference between the member variables `myLength` and `myCapacity`? Explain as completely as possible.
4. How can a free function (or free overloaded operator) be identified in a class interface? List the free functions and free overloaded operators from the `apstring` class.
5. What is an overloaded operator? Why is the `+` operator overloaded three different times in `apstring.h`? Support your examples with code from a client program that illustrates how the three are different from each other.