

## Outline of Test-D (Chapters 7-12)

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The test will have three questions of approximately the same weight:

1. **On Chapters 8 and 9**

Given an API of several classes involving has-a and is-a relationships, write programs or predict the output of code fragments. It would be most helpful if the API of Test-C were studied before taking Test-D.

2. **On Chapter 7 and 11**

Write an app that involves file I/O, parsing and tokenizing, and exception handling.

3. **On Chapter 10**

Write an app that involves a list or a map.

**Data Sheet:**

<b>String Methods (invoke on a string s)</b>	char <b>charAt(int p)</b> Returns the character at position# p in s.
int <b>compareTo(String t)</b> Returns a negative number if s<t, zero if s=t, and a positive number if s>t.	<b>Static Methods</b>
int <b>indexOf(String t, int f)</b> Looks for the string t within s, starting at position# f in s. Returns the position in s where the match was found. Returns -1 if no match was found.	Integer. <b>parseInt(s)</b> Double. <b>parseDouble(s)</b> methods to convert a string <b>s</b> that contains a number to a primitive type.
int <b>indexOf(String t)</b> Looks for the string t within s (as above), starting at the beginning of s.	double <b>abs(double x)</b> Returns the absolute value of x (Math)
String <b>substring(int f, int t)</b> Returns all characters in s with position numbers $\geq f$ and $< t$ .	double <b>pow(double x, double y)</b> Returns x raised to y. (Math)
String <b>substring(int f)</b> Returns a substring of s that begins at f and extends to the end of s.	double <b>rint(double a)</b> Returns the closest double to a that is equal to a mathematical integer. (Math)
String <b>replace(char x, char y)</b> Returns a string with all occurrences of character x in s replaced by y.	String <b>repeat(int count, char c)</b> Returns a string made up of c repeated count times. (IO)
String <b>toUpperCase/LowerCase()</b> Returns a string of all characters in s converted to upper / lower case.	<b>String Tokenizer</b> <b>Constructor:</b> (String s, String delimiters)
String <b>trim()</b> Returns the same content as s but with any leading/trailing white-space	<b>Methods:</b> String nextToken(), boolean hasMoreTokens(), int countTokens()