**CPP Problem Design Example**

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| **Subject: ComputeHMS** |
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| **Main testing concept: Basic Number Operator**   |  |  | | --- | --- | | **Basics** | **Functions** | | ■ C++ BASICS  ■ FLOW OF CONTROL  □ FUNCTION BASICS  □ PARAMETERS AND OVERLOADING  □ ARRAYS  □ STRUCTURES AND CLASSES  □ CONSTRUCTORS AND OTHER TOOLS  □ OPERATOR OVERLOADING, FRIENDS,AND REFERENCES  □ STRINGS  □ POINTERS AND DYNAMIC ARRAYS | □ SEPARATE COMPILATION AND NAMESPACES  □ STREAMS AND FILE I/O  □ RECURSION  □ INHERITANCE  □ POLYMORPHISM AND VIRTUAL FUNCTIONS  □ TEMPLATES  □ LINKED DATA STRUCTURES  □ EXCEPTION HANDLING  □ STANDARD TEMPLATE LIBRARY  □ PATTERNS AND UML | |
| **Description:**  Given a integer A as a time in seconds.  Convert the format of A from (seconds) to (hours: minutes: seconds).  **Input:**  For each test case, input a integer A(0 <= A <= 2^64-1). Stop until read an EOF.  **Output:**  For each test case, print “x hours y minutes and z seconds”, the value of x, y, z is described above.  **Sample Input / Output：**   |  |  | | --- | --- | | Sample Input | Sample Output | | 50391  489123456786  569035139015 | 13 hours 59 minutes and 51 seconds  135867626 hours 53 minutes and 6 seconds  158065316 hours 23 minutes and 35 seconds | |
| **■ Eazy,Only basic programming syntax and structure are required.**  **□ Medium,Multiple programming grammars and structures are required.**  **□ Hard,Need to use multiple program structures or complex data types.** |
| **Expected solving time:**  5 minutes |
| **Other notes:** |