**CPP Problem Design**

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| **Subject: Compute The Tax** |
| **Contributor: 張子樂，鄭鈺哲，林岳儒** |
| **Main testing concept: if else statement**   |  |  | | --- | --- | | **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:**  This is the tax payment rules for a country. Different income ranges correspond to different tax rates. Please calculate the tax payable of citizens based on this table:  Income Rate  Not over $750 1% of income  $750—$2,250 $7.50 plus 2% of amount over $750  $2,250—$3,750 $37.50 plus 3% of amount over $2,250  $3,750—$5,250 $82.50 plus 4% of amount over $3,750  $5,250—$7,000 $142.50 plus 5% of amount over $5,250  Over $7,000 $230.00 plus 6% of amount over $7,000  **Input:**  Each line represents the income of one citizen, and the income is a float-type number greater than 0.  **Output:**  Calculate taxes payable for each citizen and print them in order.  **Sample Input / Output：**   |  |  | | --- | --- | | Sample Input | Sample Output | | 750  2250  4000 | 7.50  37.50  92.50 | |
| **■ 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:**  10 minutes |
| **Other notes:** |