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| ***Computer Science 1081 -*  ASSIGNMENT #4** | | |
| **Program** | Description | **Execution Listing(s)** |
|  | Chapter 04, Programming Challenge 02 (p. 220)   * Use test data as shown to the right   http://image.mathcaptain.com/cms/images/39/roman-numerals-1-10.JPG | *Enter a number (1 - 10): 15*  *Enter a number in the range 1 through 10.*  *Press any key to continue . . .*  *Enter a number (1 - 10): 5*  *The Roman numeral version of 5 is V.*  *Press any key to continue . . .* |
|  | Chapter 04, Programming Challenge 12 (p. 222)   * Do not do any input validation * Use the following test data: 10, 49, 100. * Use only the *if* statement | *How many units were sold? 10*  *The total cost of the purchase is $792.00*  *Press any key to continue . . .*  *How many units were sold? 49*  *The total cost of the purchase is $3395.70*  *Press any key to continue . . .*  *How many units were sold? 100*  *The total cost of the purchase is $4950.00*  *Press any key to continue . . .* |
|  | Chapter 04, Programming Challenge 14 (p. 222)   * Do not do any input validation * Use only the if statement * Use the following test data:   + $1000, 2   + $1000, 39   + $-500, 65 | *Enter the following information about your checking account.*  *Beginning balance: $1000*  *Number of checks written: 2*  *The bank fee this month is $10.20*  *Press any key to continue . . .*  *Enter the following information about your checking account.*  *Beginning balance: $1000*  *Number of checks written: 39*  *The bank fee this month is $13.12*  *Press any key to continue . . .*  *Enter the following information about your checking account.*  *Beginning balance: $-500*  *Number of checks written: 65*  *Your account is overdrawn!*  *The bank fee this month is $27.60*  *Press any key to continue . . .* |
|  | Chapter 04, Programming Challenge #23 (p. 225)   * Use a switch statement to evaluate the user menu choice. * Run the program two times with the test data as shown in the execution listing to the right. * Do input validation for the correct menu choice (i.e. 1-4) but not for entering negative values. | *Geometry Calculator*  *1. Calculate the Area of a Circle*  *2. Calculate the Area of a Rectangle*  *3. Calculate the Area of a Triangle*  *4. Quit*  *Enter your choice (1-4): 5*  *You may only enter 1, 2, 3, or 4.*  *Press any key to continue*  *Geometry Calculator*  *1. Calculate the Area of a Circle*  *2. Calculate the Area of a Rectangle*  *3. Calculate the Area of a Triangle*  *4. Quit*  *Enter your choice (1-4): 3*  *Enter the length of the base: 4*  *Enter the triangle's height: 5*  *The area is 10*  *Press any key to continue* |

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| **Notes** |
| 1. Make sure that you use good programming style and documentation. 2. Unless instructed otherwise, always use the test data described in the problem. 3. Copy and paste your execution and code listings into the *Homework Template* document. Please ensure that:    * Problems are in the order listed on the assignment sheet (I.E. Program #1 first, Program #2 second, etc.)    * The execution listing corresponds with the code listing. In other words, the code listing will produce the execution listing. If it does not, no credit will be received for that problem. 4. The work you submit must be your own. Please note that any of the following actions are considered cheating:    * Electronically copying or inserting any code that you did not create.    * Manually copying or inserting any code that you did not create.    * Modifying solutions obtained off of the Internet. |