1. State whether the following are valid variable names. If not, explain why and then show how you would correct the variable name.

|  |  |
| --- | --- |
| a) string First Name; |  |
| b) char MiddleInitial; |  |
| c) double #Name; |  |
| d) int Rank\_Num; |  |
| e) Street/Address ; |  |
| f) string StreetAddress2; |  |
| g) string StreetAddress; |  |
| h) double \_Cost; |  |
| i) int K; |  |

2. Were the above variables declared for a strongly typed or loosely typed programming language?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. For each of the following, which DATA TYPE would you use to store the following types of information? Don’t change the problem’s lettering.

|  |  |
| --- | --- |
| a) Person’s place of birth |  |
| b) Person’s year of birth (1999) |  |
| c) License Plate (“AMXT 048”) |  |
| d) Person’s age (21) |  |
| e) Student’s grade (80.5) |  |
| f) Cost of a product (14.50) |  |
| g) Person’s name (“Smith”) |  |
| h) Person’s height in inches (70.65) |  |

4. Declare each of the variables from Question 3. Don’t change the problem’s lettering.

|  |
| --- |
| a) |
| b) |
| c) |
| d) |
| e) |
| f) |
| g) |
| h) |

5. Write **assignment statements** that perform the following operations with the variables **a**, **b**, and **c**.

|  |  |
| --- | --- |
| a) Adds 2 to **a** and stores the result in **b** |  |
| b) Multiplies **b** times 4 and stores the result in **a** |  |
| c) Divides **a** by 3.14 and stores the result in **b** |  |
| d) Subtracts 8 from **b** and stores the result in **a** |  |
| e) Stores the character ‘K’ in **c** |  |
| f) Tests/compares **c** for equality to the character ‘x’ and stores the answer in a new variable called **result** |  |
| g) Tests if **c** is less than the value in **a** and stores the answer in **result** |  |
| h) Tests if the value in **a** is greater than or equal to **b** or greater than or equal to **c** and stores the answer in **result** |  |

Answer the following in your own words.

6. Why are variable names like x not recommended?

Answer:

7. What things must be considered when deciding on a data type to use for a variable?

Answer: