

IVY TECH COMMUNITY COLLEGE
CINS 113 / Computing Logic
S11 Homework Assignment (30 points)

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INTRODUCTION: In this assignment, you will write statements and definitions from the assigned readings in Books 24x7:

- Beginning Programming, All-in-One Reference for Dummies: Chapter 2 in Book II (Variables, Data Types and Constants)
- Beginning Programming, All-in-One Reference for Dummies: Chapter 1 in Book III (Structures and Arrays)
- Software Testing: A Craftsman's Approach: Chapter 3 (Discrete Math for Testers)

ASSIGNMENT: Answer the following questions by typing your answers into the space after each question. When you are finished, save the file and submit this document through Blackboard.

#1. Write a statement that assigns the value 3 to a variable named YearsOfService. (2 points)

```
YearsOfService = 3
```

#2. Write a series of three statements that assign the value 40 to the variable HoursWorked, the value 17.50 to the variable HourlyWage, and a statement that multiplies them together and stores the result in the variable GrossPay. (6 points)

```
HoursWorked = 40  
HourlyWage = 17.50  
GrossPay = HoursWorked * HourlyWage
```

#3. Write a single statement that prints the label "Your score is: " followed by a variable named Score1. (4 points)

```
Print "Your score is:", Score1
```

#4. Write two statements. The first assigns the value 1200 to the variable Sales. The second calculates the value of 10% times Sales and assigns that value to a variable called Bonus. (4 points)

```
Sales = 1200  
Bonus = Sales * .10
```

#5. Write the definition of a structure named Book that includes the variables Title, Author and NumberOfPages, using the data types String and Integer as appropriate. (4 points)

```
Structure Book
    Dim Title as String
    Dim Author as String
    Dim NumberOfPages as Integer
End Structure
```

#6. Write a single statement that assigns the values 99, 100 and 88 to an integer array named TestScores. Use the C++ notation used for the "lottery numbers" array. (4 points)

```
int TestScores[] = {99, 100, 88};
```

#7. Write three statements about sets. The first defines set A with values 1, 2, 3, 4 and 5. The second defines set B with the values 2, 4, 6, 8 and 10. The third lists the union of sets A and B. (Use the uppercase letter U to signify union.) (6 points)

```
A = {1,2,3,4,5}
B = {2,4,6,8,10}
A U B = {1,2,3,4,5,6,8,10}
```