

Grade 12 Computer and Information Science
Mid-Unit Quest – Introduction to C# and Review of Programming

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Victim: Mr. Solutions*Well done Mr. S.!!*

KU

APP

15/15

10/10

1. Match each term in the left column with the *best* definition in the right column. (15 KU)

F %~~X~~. Operators, such as &&, || and ! that are used to create compound conditions.H braces~~X~~. An appliance that corrects dental irregularities.Q data field (property)~~Q~~. A function or “action” that belongs to an object.O !~~O~~. A programming structure that allows a particular group of statements to be repeated a certain number of times or while a certain condition is true.N object~~N~~. A tangible and visible entity.D repetition (looping)~~D~~. Operator used to evaluate the remainder obtained upon dividing two integers.P assignment statement~~P~~. A binary variable that can take on two possible values called “true” and “false.”M declaration~~M~~. Symbols used to enclose a group of statements that are to be treated as a single (compound) statement.A conditional operators~~A~~. An approximation of the set of real numbers used for computer systems. The term comes from the fact that there is no fixed number of digits before and after the decimal point.L selection (“if”)~~L~~. Any whole number, including zero and negative numbers.C method~~C~~. A name that represents a changeable value that is stored in a computer’s memory.I floating point numbers~~I~~. A programming structure that allows a particular group of statements to be executed while other groups of statements may be ignored.J integer~~J~~. A statement that specifies the name, data type and other aspects of a variable.G boolean~~G~~. Generally, a collection of properties (data fields) and methods. In the .NET environment, events may also be included.K variable~~K~~. The “not” operator used in C-style languages.~~K~~. A statement that is used to give a value to a variable.~~K~~. A variable that belongs to an object.

2. Correct the errors in the following C# program segment. (10 APP)

// MEMORY and INPUT and INITIALIZATION

~~int~~ ~~string~~ num = 3782 ;

~~int~~ ~~string~~ sumOfProperDivisors = 1 ;

// PROCESSING: Calculate the sum of the

// proper divisors of 'num' ^{Count as 1} ~~d++~~

for (int d = 2; d ~~>=~~ num / 2; ~~d++~~)

{
if (num % d ~~=~~ 0)

{
sumOfProperDivisors ~~++~~+= d;
}

} //end for

There are 12 errors altogether.

$\frac{10}{10}$ for finding and correcting any 10 of the 12.

// MEMORY and INPUT and INITIALIZATION

int num = 3782;

int sumOfProperDivisors = 1;

// PROCESSING: Calculate the sum of the

// proper divisors of 'num'

for (int d = 2; d <= num / 2; d++)

{
if (num % d == 0)

{
sumOfProperDivisors += d;
}

} //end for