Worksheet: Vocabulary 1

1. Copy each vocabulary word once into each box to the right of it, then copy the definition of each vocabulary word <u>once</u> into the box(es) below it. Make sure you understand the definition. Feel free to write Chinese characters that will help you remember the meaning.

a.

algorithm				
An ***algorithm*** is a precise method of solving a problem.				
An ***algorithm*** consists of a sequence of unambiguous, step-by-step instructions.				

b.

program				
A ***program*** is an ***algorithm*** that has been converted into program code so that it can be executed by a computer.				

c.

constant				
A ***constant*** is a memory location that stores an unchangeable value.				

d.

variable				
A ***variable*** is a memory location that stores a value that may change while the program is running.				

e.

allocate				
To ***allocate*** is to set aside a specific amount of memory for storing data.				

e.

declare				
When we ***declare*** a variable, we tell the compiler to *allocate* memory to store a value.				

f.

initialize				
To ***initialize*** a variable is to give a first value to the variable.				

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2. Variables in Java are declared with a combination of the data type and the identifier, followed by a semicolon. For example, to declare a variable named `count` that will hold an *integer* (so we will use type `int`), one writes:

```
int count;
```

Follow the example in the first row to complete the empty cells of the table with ***variable declarations***. Use only the data types: **`boolean`**, **`int`**, **`char`**, and **`double`**. The variable label must be descriptive and must use camel case.

	Data stored in the variable	Declaration of the variable
	the count of iterations of a loop	`int loopCounter;`
a)	the floor a guest will stay on in a hotel	
b)	the height of a student, measured in meters	
c)	whether a person is male or not	
d)	the year a person was born	
e)	the choice a student made when answering a multiple-choice question in a quiz program	
f)	the circumference of a circle of radius 1	
g)	the number of visitors in an amusement park, with people entering and leaving throughout the day	
h)	Which class a passenger's ticket is: first class ("f"), business class ("b"), or economy ("e")	

3. It is common to declare and initialize a variable in a single line of code. For example, to declare a loop counter named `count` and initialize to a value of zero, one writes:

```
int count = 0;
```

For each of the variable declarations in part (2), rewrite the line to both ***declare*** and ***initialize*** the variable to a reasonable value. Keep the same variable name you used in part (2).

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