CS 202 Homework 0
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This document also available electronically at the course website.
HINT: Running both my code, and your new code is highly encouraged!

Turn in a paper copy Thursday 2010-01-28 at the beginning of class.

0.) Your UAF email: ______________@alaska.edu

1.) Why does this code print "3"!?
   int a=2, b=3;
   if (a==b) { cout<<a; }

2.) Which of these user input loops sometimes skips the cin entirely?
   a.) int i; do { cin>>i; } while (i<0 || i>=10);
   b.) int i; while (i<0 || i>=10) { cin>>i; }
   c.) int i; for (i=-1;i<0||i>10;cin>>i) {}

   Why? ____________________

3.) This user-input program goes into an infinite loop if you enter "a". Please fix it.
   int i=-1; while (i<0 || i>=10) { cout<<"An int?
"; cin>>i; }

4.) Which implementation is better?
   a.) char name[10]; cin>>name;
   b.) string name; cin>>name;

   Why? ____________________

5.) Make this program print the same things, but without ever using "string":
   string name; cin>>name;
   string sirname="my good friend "+name+, Esq.;
   cout<<"Greetings, "+sirname+"! How long have we known each other, "+sirname+"?\n";
6.) Write a function to return the j'th string's k'th letter. Return '@' if j or k is invalid.

```c
struct triString {
    string s0;
    string s1;
    string s2;
};

char extractLetter(triString t, int j, int k) {
    // Implementation
}
```

(For example, "extractLetter(t,2,7)" would return t.s2[7].)

7.) What does this code print? ________
```c
const char *str="mtzlpvk"; const char *ptr=&str[4];
cout<<*ptr++; cout<<*ptr++;
```

8.) Please rewrite "mystrup" to use simple array indexing, not this weird pointer arithmetic:
```c
void mystrup(char *dest, const char *src) {
    while (0!= (*dest++ = toupper(*src++))) {}
}
```

9.) Which compiler/IDE do you usually use?  
___ Visual C++ ___ Dev-Cpp ___ Code::Blocks ___ XCode ___ make/g++ ___ __________
Which OS do you usually use? ___ XP ___ Vista ___ Windows 7 ___ OS X ___ Linux
Which languages are you comfortable writing in? (check all that apply)
___ C++ ___ C# ___ Java ___ Plain C ___ Perl ___ PHP ___ Python ___ Ruby ___ __________
(Score: 0 points. Pure curiosity on my part, although it does determine what I'll cover...)