Figure 1: http://xkcd.com/138/

C++ Review Lab Exercises

1 Pointers

1.1

Write a function that swaps two integer values using call-by-reference.

1.2

Write a function that swaps two integer values using pointers.

1.3

Write a function that swaps two pointers to point to each other's values. Your function should work correctly for the following example invocation:

```
int x = 5, y = 6;
int *ptr1 = &x, *ptr2 = &y;
swap(&ptr1, &ptr2);
cout << *ptr1 << ' ' << *ptr2 << endl; // Prints "6 5"
```

2 Strings - Pig Latin

In this exercise, you will write a program that turns a given English word into Pig Latin. Pig Latin is a language game of alterations played in English. The rules are outlined below:

(a) In words that begin with a consonant, the initial consonant (if the wortd starts with 'q', then treat 'qu' as the initial consonant) is moved to the end of of the word, and an *ay* is added. Examples:

- bus : usbay
- happy : appyhay
- quadratic : adraticquay

(b) In words that begin with vowel sounds, the syllable *way* is simply added to the end of the word.

Write a function `pigLatinify` that takes a `string` object as an argument. (Youmay assume that this string contains a single lowercase word). It should return a new `string` containing the Pig Latin vewrsion of the original. You may find it useful to define a constant of type `string` valled `vowels`.

Remember that string objects allow the use of operators such as `+=` and `+`.

3 Arrays

Write a `reverse` function that takes an integer array and its length as arguments. Your function should reverse the contents of the array, leaving the reversed values in the original array, and return nothing.

Also, write a function `printArray` to print the contents of an integer array with the string ", " between elements (but not after the last element). Your function should return nothing.