Exercise 3. *Deadline: 23 March 2009.*

COURSE OF C++ PROGRAMMING LANGUAGE

DATA TRANSFORMATION TO THE `string` OBJECT

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Exercise

Define several functions called `tostring()` using the mechanism of function overloading and default arguments:

```
string tostring (const char *arg);
string tostring (char arg);
string tostring (int arg);
string tostring (double arg, int precision=3);
string tostring (void *arg);
string tostring (const string &arg, int length, justification just=RIGHT);
```

Each function `tostring()` should transform its first argument to the `string` object. Numbers of type `int` or `double` should be showed in the decimal numeral system. A pointer `void*` should be showed as a hexadecimal number. The last function `tostring (const string &arg, int len, justification just)` has an enumeration argument `justification`: it tell us about the position of the first argument `arg` in a sequence of characters of the lenght `len`.

```
enum justification {CENTER, LEFT, RIGHT};
```

Write a short program which will test your functions.

Suggestion

Partition your code into the header file and source files. Place the functions into namespace `MyCalculations`.

Hint

Some information about the decimal numeral system can be found on the webpage:

`http://en.wikipedia.org/wiki/Decimal`