```cpp
/* The following code example is taken from the book
 * "The C++ Standard Library - A Tutorial and Reference, 2nd Edition"
 * by Nicolai M. Josuttis, Addison-Wesley, 2012
 *
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 */
#include <string>
#include <iostream>
#include <limits>
#include <exception>

int main()
{
  try {
    // convert to numeric type
    std::cout << std::stoi (" 77") << std::endl;
    std::cout << std::stod (" 77.7") << std::endl;
    std::cout << std::stoi ("-0x77") << std::endl;

    // use index of characters not processed
    std::size_t idx;
    std::cout << std::stoi (" 42 is the truth", &idx) << std::endl;
    std::cout << " idx of first unprocessed char: " << idx << std::endl;

    // use bases 16 and 8
    std::cout << std::stoi (" 42", nullptr, 16) << std::endl;
    std::cout << std::stol ("789", &idx, 8) << std::endl;
    std::cout << " idx of first unprocessed char: " << idx << std::endl;

    // convert numeric value to string
    long long ll = std::numeric_limits<long long>::max();
    std::string s = std::to_string(ll);  // converts maximum long long to string
    std::cout << s << std::endl;

    // try to convert back
    std::cout << std::stoi(s) << std::endl;  // throws out_of_range
  }
  catch (const std::exception& e) {
    std::cout << e.what() << std::endl;
  }
}
```