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::::::::::::::::::
getchars.cc
::::::::::::::::::
#include <iostream>
using namespace std;

int main()
{
        char end = 'Q';
        char c;

        cin >> c;
        while ( (not cin.fail()) and (c != end) )
        {
                cout << "|" << c << "|";
                cin >> c;
        }
}

/*

paulko@pierb519p01 <7:53pm 8> getchars
asdf   fAS;qH  aQSDF
|a||s||d||f||f||A||S||;||q||H||a|paulko@pierb519p01 <7:53pm 9>

*/


::::::::::::::::::
roman.cc
::::::::::::::::::


#include <iostream>
#include <string>
using namespace std;

// program to convert roman numerals
int main()
{
        const string roman_numerals = "IVXLCDM";
        const int roman_values[7] = {1,5,10,50,100,500,1000};

        string input;
        cout << " Enter a roman number > ";
        cin >> input;

        int last_roman_numeral_value = 0;
        int new_roman_numeral_value;
        int total=0;
        int i=0;
        while (i< input.size())
        {
                char thischar = input[i];
                thischar = toupper(thischar);

                int roman_numeral_index = roman_numerals.find(thischar);
                if (roman_numeral_index == roman_numerals.npos)
                {
                        cerr << " Error " << thischar << " invalid" << endl;
                }

                new_roman_numeral_value = roman_values[roman_numeral_index];
```

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                if (new_roman_numeral_value <= last_roman_numeral_value)
                {
                        total = total + new_roman_numeral_value;
                }
                else // handle IV and IX
                {
                        total = total + new_roman_numeral_value
                                - 2*last_roman_numeral_value;
                }

                last_roman_numeral_value = new_roman_numeral_value;
                i = i+1;
        }
        cout << " = " << total << endl;
}

/*

paulko@pierb519p01 <8:18pm 26> roman
 Enter a roman number > ix
 = 9
paulko@pierb519p01 <8:18pm 27> roman
 Enter a roman number > MCMLXII
 = 1962
paulko@pierb519p01 <8:18pm 28> roman
 Enter a roman number > a
 Error A invalid
 = 0

*/
```