Practice Exercises - Chapter: 03

* Exercise 3.1: Display ASCII code.

Write a program to input a character and display its ASCII code.

Solution 3.1:

```cpp
#include <iostream>
using namespace std;

int main()
{
    char ch;

    cout << "Enter a charater: ";
    cin >> ch;
    cout << "Its ASCII value: " << static_cast<int>(ch);
    // Another way:  cout << "Its ASCII value: " << int(ch);

    return 0;
}
```

* Exercise 3.2: Convert real number to integer number.

Write a program to input a real number (type "double"), then convert it to an integer (type "int") and display the result.

Solution 3.2:

```cpp
#include <iostream>
using namespace std;

int main()
{
    double num_double;

    cout << "Enter a real number: ";
    cin >> num_double;
    cout << "Result of converting to an integer: " << int(num_double);

    return 0;
}
```

* Exercise 3.3: Display a VKU welcome message.

Write a program to input a full name and then display a VKU welcome message with this full name.

Solution 3.3:

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

int main()
{
    string fullName;

    cout << "Type your full name: ";
    getline(cin, fullName);
    cout << "Welcome " << fullName << " to VKU!";

    return 0;
}
```

* Exercise 3.4:

Write a program to enter a string from the keyboard and print the length of that string to the screen.

* Exercise 3.5:

If a car has an initial velocity called "v0", an acceleration called "a" and a time called "t".

Write a C++ program to find the final speed of the car and print the result to the screen.

Hint:

Use the cin command to enter the corresponding values for "v0"," a", and "t".

Use the formula v = v0 + a.t to calculate the final velocity

* Exercise 3.6:

Write a C++ program to print out the following output:

Gtri x Gtri y Bieu Thuc Ket qua

Gtri x	Gtri y	Bieu Thuc	Ket qua
18|	2|	A=y+3	|A=5
18|	2|	B=y-2	|B=0
18|	2|	C=y*5	|C=10
18|	2|	D=x/y	|D=9
18|	2|	E=x%y	|E=0

* Exercise 3.7:

Write a C++ program to input two integers "x"," y", then calculate: p=x*y, s=x+y, q=s2+p(sx)*(p+y) and print out the result to the screen.

* Exercise 3.8:

Write a program to enter degree of an angle, calculate and print to the screen sine, cosine, tangent and cotangent values corresponding to this angle.

* Exercise 3.9:

Write a program to input exam scores, midterm exam scores, and final exam scores, then calculate the total score and print the results to the screen as follows:

=========Diem kiem tra===============

Nhap diem kiem tra 1:10

Nhap diem kiem tra 2:9

Nhap diem kiem tra 3:10

=========Diem thi giua ky============

Nhap diem thi giua ky:8.5

==========Diem thi cuoi ky============

Nhap diem thi cuoi ky:10

Tong diem kiem tra: 29

Diem thi giua ky: 8.5

Diem thi cuoi ky: 10

....

* Exercise 3.10:

Write a program to enter a two-digit number, calculate total of two digits and print the result to the screen.