**Laboratory work 4**

**Exercise 1**

What value does x contain after each of the following where x is of type float.

1. x = 7 + 3 \* 6 / 2 - 1 ;

2. x=(3 \*9\*(3+(4\*5/3)));

3. x = 12.0 + 2 / 5 \* 10.0;

4. x=2/5+10.0\*3-2.5;

**Exercise 2**

Write a program to read Fahrenheit temperatures and print them in Celsius. The conversion formula is C = (5/9)(F - 32).

**Exercise 3**

Write a program that reads in the radius of a circle and prints the circle's diameter, circumference and area. Use the value 3.14159 for p.

**Exercise 4**

Write a program to read in two points and calculate the distance between

them. Given 2 points (x1; y1) and (x2; y2), the distance (d) between them is given by:

.

**Exercise 5**

Get the user to input an integer number of seconds (i.e. 5049). Write a

program to convert this in hours, minutes and seconds. (The modulus operator will

come in handy). For example 5049 = H:1 M:24 S:9.

**Exercise 6**

A drinks machine manufacturer requires software for dispensing change.

One euro (100 cent) is the maximum that can be put into the machine. Given the

amount inserted and the cost of the item devise the change required. For example

suppose you put in 1 euro for an item costing 45 cent then your program should

generate output as follows:

Number of 50 cent coins : 1

Number of 20 cent coins : 0

Number of 10 cent coins : 0

Number of 5 cent coins : 1

Number of 2 cent coins : 0

Number of 1 cent coins : 0