

## Exercise Sheet # 2 (03-10-2001)

### Exercise 1:

Rewrite each of the following statements:

- a. `SumOfSquares = SumOfSquares + x * x`
- b. `count = count + 1`
- c. `count = count - 1`

### Exercise 2:

- a. Define and give an example of type coercion and type casting
- b. Name two things that contribute to the readability of a program
- c. Define and give an example of precedence and associativity

### Exercise 3:

True or False ?

- a. `0 % 7.0` yields the value 0.
- b. If `floatValue` is a float containing 5.0, the expression  
`float(int(floatValue * 10.0 + 2.0)) / 10.0;`  
gives 5.2 as its result.
- c. The program becomes more readable if type casting is used instead of type coercion.
- d. Promotion and demotion may cause loss of information.

### Exercise 4:

Compute the value of each legal expression. Indicate whether the value is an integer or a floating point value. If the expression is not legal, explain why.

- a. `10 + 3`
- b. `-9.4 - 6.2`
- c. `10.0 / 3.0`
- d. `10 / 3`
- e. `10 % 3`
- f. `10.0 % 3.0`
- g. `4 / 8`
- h. `10.0 / 3.0 + 5 * 2`
- i. `10 % 3 + 5 % 2`
- j. `10 / 3 + 5 / 2`
- k. `12.5 + (2.5 / (6.2 / 3.1))`
- l. `-4 * (-5 + 6)`
- m. `13 % 5 / 3`
- n. `(10.0 / 3.0 % 2) / 3`

**Note:** There will be a practical work after solving the above questions.  
The task will be announced during the session.