

UNITS 7 AND 8: SEMANTIC ANALYSIS and ERROR HANDLING

You are asked to write a program (using *bison*) that reads number sequences with interspersed sum operators. The numbers can be integers or can have decimals. The program should add the numbers and print the sum. In those cases where at least one of the operands is of real type, it should perform a promotion of each number or intermediate sum to the real type. If all the operands are integer, the intermediate sum and the final output should be performed using integer types.

Examples:

```
1.1 + 2
    real value = 3.100000
1 + 2
    integer value = 3
1 + 1.1
    real value = 2.100000
1.1 + 1.1
    real value = 2.200000
1.1 + 1.2 + 1
    real value = 3.300000
```