Lab#5

1. Keeping in mind precedence rules, evaluate the following expressions as your C++ program would do it:
   • 12 / 3 * 3 =
   • 10 % 3 - 6 / 2 =
   • 5.0 * 2.0 / 4.0 * 2.0 =
   • 5.0 * 2.0 / (4.0 * 2.0) =
   • 5.0 + 2.0 / (4.0 * 2.0) =

2. Since an assignment is really an expression and not a statement, it may be used anywhere an expression may be used. Evaluate the following assignment expressions.
   ```cpp
   int n1, n2;
   double n3;
   • n1 = ( n3 = (n2 = 5) * 4 / 8.0 ) * 2;
     cout << n1 << endl << n2 << endl << n3 << endl;
   • n1 = ( n3 = (n2 = 5) * 4 / 8 ) * 2;
     cout << n1 << endl << n2 << endl << n3 << endl;
   • n1 = ( n3 = (n2 = 5) * (4 / 8.0) ) * 2;
     cout << n1 << endl << n2 << endl << n3 << endl;
   • n1 = ( n3 = (n2 = 5) * (4 / 8) ) * 2;
     cout << n1 << endl << n2 << endl << n3 << endl;
   ```
* The above is an error-prone approach to programming. Try to avoid it by all means, but know that these are legal expressions.

3. For each of the following indicate whether the expression is valid or invalid. If the expression is valid, indicate whether the result is integer or double.
   • 10.0 / 3.0 + 5 * 2
   • 10 / 4 + 6 / 3
   • 10 % 4 + 6 % 3
   • (10.0 / 3.0 % 2) / 3
   • 13.25 + (5.0 / (3.0 / 3.5))
   • -4 * (-5 + 6)