

## Program 4 Notes

### Boolean Operators, If statements

#### Definitions

- The if statement allows a program to make decisions. For example, a program could make a decision based on the current temperature stored in a variable named Temp:

Ex.     **if** (temp < = 45)  
          cout << "Wear a coat today." << endl;

- The if statement takes the form:

**If** (condition)  
statement;

- The *condition* of the if statement is a Boolean expression. A *Boolean expression* is an expression that evaluates to either true or false.

<u>Operator</u>	<u>Meaning</u>
==	equal to
<	less than
<=	less than or equal to
>	greater than
>=	greater than or equal to
!=	not equal to

- **Modulus Division:** Another built-in arithmetic operator is modulus division, %. *Modulus division* returns the remainder resulting from division. For example...
  - cout << (25%4);  
      results in a value of 1 since the remainder of 25 divided by 4 is 1.
  - *Modulus division* operator may only be used with int or long values; an attempt to use a double value with the % operator will generate a compile error message.
  - **NOTE:** You will use Modulus Division in your program code. I will leave it up to you to find out where for the time being.