

Exercise – Conditional Statements

Another series of questions to help you become familiar with conditional statements. They will start off easy but increase in difficulty, with some questions in there to really make you think!

1. Write an if statement that assigns 100 to x when y is equal to zero
2. Write a program that asks the user for two numbers and then display the larger number to the console.
3. Implement a C++ program that reads five (5) numbers and displays the numbers in ascending order if the sum of the five numbers is positive and in descending order if the sum is negative. If the sum is equal to zero then the program must display the numbers in the same order that they were entered
4. Convert the following code into a switch statement:

```
if (choice == 1)
{
    std::cout << "1";
}
else if (choice == 2 || choice == 3)
{
    std::cout << "2 or 3";
}
else if (choice == 4)
{
    std::cout << "4";
}
else
{
    std::cout << "Invalid";
}
```

5. Convert the following if statement into a ternary operator

```
if (x == 0)
{
    y = 0;
}
else
{
    y = 10 / x;
}
```

6. Write a program that accepts from the user two numbers and a mathematical operation character (+, -, *, /, %). Perform the appropriate maths based on which character is input.
7. Write a program that accepts an integer that represents the month of the year. It should then display the number of days in that month. If a number that doesn't correspond to a month is entered then the program should display an error message.
8. Suppose you have the following declarations:

```
bool flag = true;
int numPos = 35, numNeg = -55;
char frstChar = 'J', scndChar = 'O';
double frstPrice = 5.60;
```

- a. numPos > numNeg
 - b. frstChar > scndChar
 - c. !(numPos + numNeg)
 - d. (numPos == -30) || (numNeg == -55)
 - e. (frstPrice >= 4.1) && (frstPrice <= 9.9)
 - f. !flag && (scndChar <= 'R')
 - g. (numPos < 66) || (flag && numPos > 35)
 - h. ++numPos == 36
 - i. numPos++ == 36
 - j. (frstChar == 'j') || (frstChar == 'J')
9. Evaluate the following logical expressions, where a is equal to true and b is equal to false
 - a. (a || b) || (a && b)
 - b. !((!a) && (a)) || (a && b)
 - c. !((5 || a) || (!b)) && (!(a) && b)
 - d. a || b && a
 - e. !a&&b