Tutorial 04
Expressions | Operators | Conditional Statements

Exercise 1:

A. Which of the following expressions results in 45.37?
1. `(int)(45.378 * 100) / 100`
2. `(int)(45.378 * 100) / 100.0`
3. `(int)(45.378 * 100 / 100)`
4. `(int)(45.378) * 100 / 100.0`

B. What is y displayed?
```
public class Test {
  public static void main(String[] args) {
    int x = 1;
    int y = x + x++;
    System.out.println("y is " + y);
  }
}
```
1. `y is 1`
2. `y is 2`
3. `y is 3`
4. `y is 4`

C. What is the value of i printed in the following code?
```
public class Test {
  public static void main(String[] args) {
    int j = 0;
    int i = ++j + j * 5;
    System.out.println("What is i? " + i);
  }
}
```
1. `0`
2. `1`
3. `5`
4. `6`

D. Assuming that x is 1, show the result of the following Boolean expressions:
1. `(x > 0)`
2. `(x < 0)`
3. `(x != 0)`
4. `(x >= 0)`
5. `(x != 1)`

Exercise 2:

Write a program that declares two integer variables x and y and initializes their values to 0. Then it reads the value of variable y and assigns 1 to x if y is greater than 0. Finally it prints the value of variable x.

Here are two sample runs:

```
Enter value of y: 5 ↵
Value of x is 1
```

```
Enter value of y: 0 ↵
Value of x is 0
```

Exercise 3

Write a program that reads the performance level of an employee (between 0 and 100) and his salary. Then it increases the salary by 3% if performance level is greater than or equal to 90.

Here are two sample runs:

```
Enter performance level: 50 ↵
Enter base salary: 5000 ↵
Salary is 5000.0
```

```
Enter performance level: 90 ↵
Enter base salary: 10000 ↵
Salary is 10300.0
```

Exercise 4

Write a program that reads values of seconds, minutes and hours as integers, then prints the equivalent number of seconds

Exercise 5

Write a program that reads a number of seconds, and converts it to the regular form of h:m:s, then prints the results.