Examples

Week 4

ScannerEx.java

```java
import java.util.Scanner;

public class ScannerEx
{
    public static void main(String args[])
    {
        System.out.println("Enter name, city, age, weight, marriage.");
        Scanner scanner = new Scanner(System.in);

        String name = scanner.next();
        System.out.print("Name: " + name + ", ");

        String city = scanner.next();
        System.out.print("City: " + city + ", ");

        int age = scanner.nextInt();
        System.out.print("Age: " + age + ", ");
```

ScannerEx.java

```java
        double weight = scanner.nextDouble();
        System.out.print("Weight: " + weight + "kg, ");

        boolean marriage = scanner.nextBoolean();
        System.out.println("Marriage: " + marriage);

        scanner.close();
    }
}
```

```
Enter name, city, age, weight, marriage.
Kim Seoul 20 65.1 true ↵
Name: Kim, City: Seoul, Age: 20, Weight: 65.1kg, Marriage: true
```

ArithmeticOperator.java

```java
import java.util.Scanner;

public class ArithmeticOperator {
  public static void main(String[] args)    {
      Scanner scanner = new Scanner(System.in);
      System.out.print("Enter number: ");
      int time = scanner.nextInt();
      int second = time % 60;
      int minute = (time / 60) % 60;
      int hour = (time / 60) / 60;
      System.out.println( "hour: " + hour );
      System.out.println( "minute: " + minute );
      System.out.println( "second: " + second );
      scanner.close();
  }
}
```

```
Enter number: 23582 ↵
hour: 6
minute: 33
second: 2
```

AssignmentIncDecOperator.java

```java
public class AssignmentIncDecOperator
{
    public static void main(String[] args)
    {
        int a=3, b=3, c=3;

        a += 3;          // a=a+3 = 6
        b *= 3;          // b=b*3 = 9
        c %= 2;          // c=c%2 = 1
        System.out.println("a=" + a + ", b=" + b + ", c=" + c);
```

a=6, b=9, c=1

AssignmentIncDecOperator.java

```java
    int d=3;
    a = d++;        // a=3, d=4
    System.out.println("a=" + a + ", d=" + d);
    a = ++d;        // d=5, a=5
    System.out.println("a=" + a + ", d=" + d);
    a = d--;            // a=5, d=4
    System.out.println("a=" + a + ", d=" + d);
    a = --d;            // d=3, a=3
    System.out.println("a=" + a + ", d=" + d);
    }
}
```

```
a=3, d=4
a=5, d=5
a=5, d=4
a=3, d=3
```

LogicalOperator.java

```java
public class LogicalOperator {
    public static void main (String[] args) {

        System.out.println( 'a' > 'b' );
        System.out.println( 3 >= 2 );
        System.out.println( -1 < 0 );
        System.out.println( 3.45 <= 2 );
        System.out.println( 3 == 2 );
        System.out.println( 3 != 2 );
        System.out.println( !(3 != 2) );

        System.out.println( (3 > 2) && (3 > 4) );
        System.out.println( (3 != 2) || (-1 > 0) );
        System.out.println( (3 != 2) ^ (-1 > 0) );
    }
}
```

```
false
true
true
false
false
true
false
false
true
true
```

Account.java

```java
import java.util.Scanner;

public class Account
{
    public static void main( String[] args )
    {
        double balance = 0.0;
        System.out.printf( "Balance: $%.2f\n", balance );

        Scanner input = new Scanner( System.in );
        double amount;

        System.out.print( "Enter deposit amount: " );
        amount = input.nextDouble();
        balance += amount;
        System.out.printf( " Balance: $%.2f\n", balance );
```

Account.java

```java
        System.out.print( "Enter deposit amount: " );
        amount = input.nextDouble();
        balance += amount;
        System.out.printf( " Balance: $%.2f\n", balance );
    }
}
```

```
Balance: $0.00
Enter deposit amount: 24
Balance: $24.00
Enter deposit amount: 145.4
Balance: $169.40
```

Ex04_1.java: 원화→달러화 변환

▸ 아래와 같은 프로그램을 작성하시오.

  ▸ 원화 가격을 입력 받으시오.

  ▸ 달러 가격으로 변환하여 출력하시오. (단, 1달러=1170원)

    ▸ 소수 둘째 자리까지 출력하시오.

```
Price in won: 23500 ↵
--> $20.09
```

Ex04_2.java: 세 자리 수

▸ 아래와 같은 프로그램을 작성하시오.

  ▸ 세 자리 정수(100~999)를 입력 받으시오.

  ▸ 100의 자리 수와 10의 자리 수, 1의 자리 수를 각각 출력하시오.

```
Enter number(100-999): 522 ↵
5   2   2
```

Ex04_3.java: 현금지급기

▸ 아래와 같은 프로그램을 작성하시오.

  ▸ 인출할 총액을 만원 단위로 입력 받으시오.

  ▸ 5만원권으로 인출할 금액을 만원 단위로 입력 받으시오.

  ▸ 5만원권의 수와 1만원권의 수를 출력하시오.

```
Amount of withdrawal: 137 ↵
Amount in 50,000-won banknote: 120 ↵
50,000-won banknote: 24
10,000-won banknote: 17
```

Ex04_4.java: 거스름돈

▸ 아래와 같은 프로그램을 작성하시오.

  ▸ 거스름돈을 입력 받으시오.

  ▸ 5만원권, 1만원권, 5천원권, 1천원권의 장수와 500원, 100원, 50원, 10원 동전의 개수를 출력하시오.

```
Amount: 87920 ↵
50,000-won banknote: 1
10,000-won banknote: 3
5,000-won banknote: 1
1,000-won banknote: 2
500-won coin: 1
100-won coin: 4
50-won coin: 0
10-won coin: 2
```