

Values and Data Types: 8

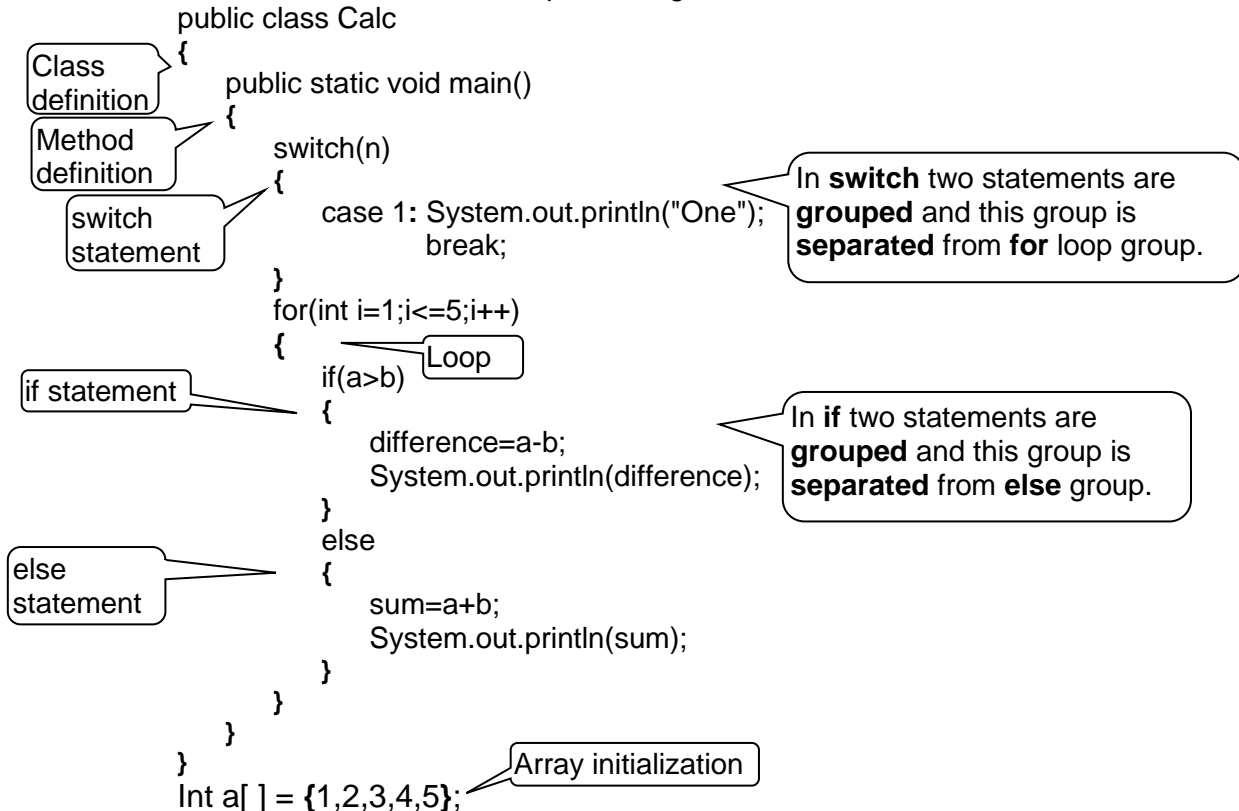
Lesson 8

Punctuators / Separators

Punctuators / Separators are punctuation marks which are used to group or separate statements and variables etc. The separators used in Java are: { } () [] . , ; Apart from these punctuators Java uses a symbol : which is known as **label**.

{ } Curly braces

The { } is used to group statements as a block and separate with other statements. These are used to define classes, methods, switch, if else, loops etc. E.g.:



() Parenthesis

There are three uses for (). They are:

- 1) To give **higher precedence to an operator** that has lower precedence. E.g.: $a=7*(5+3)$;
- 2) To **type cast**. E.g.: `(char)65 (int)'A'`
- 3) To write **arguments in method prototype** and **method call**.
E.g.: i) `System.out.println("Hello");` ii) `Math.pow(a,b);`

[] Brackets

The [] is used for **array definitions** and processes. E.g.: `int a[] = new int[10];`

. Dot

The . is used for **class reference**, **package reference** and **object reference**.

E.g.1: `System.out.println("Hello"); Math.sqrt(36);` //class reference (`Math.sqrt`)

E.g.2: `java.util.*;` //package reference

E.g.3: `sc.nextLine();` //object reference `sc` is the object

, Comma

The , is used to separate **variables** while declaring them. E.g.: `int a,b,c;`

; Semi colon

The ; is used to separate **statements**. E.g.: `int a; a=10;`

: Label

The : is known as label. One of its uses is to write a case in switch. E.g.: `case 1 : a+b;`

Correct errors:

```
public class A()  
{  
    public static void main[]  
    {  
        int a=5; b=3; c=2;  
        c=a+b, b=a-c;  
        System.out.println("b=",b,"c=",c);  
    }  
}
```

Answer

```
public class A  
{  
    public static void main()  
    {  
        int a=5, b=3, c=2;  
        c=a+b; b=a-c;  
        System.out.println("b="+b+"c="+c);  
    }  
}
```

Write the following:

- 1) The punctuator to refer a package
- 2) The punctuator to define a class
- 3) The punctuator to include arguments of a method
- 4) The punctuator to define method body
- 5) The punctuator to increase priority (precedence) to an operator
- 6) The punctuator to refer a class
- 7) The punctuator to separate variables
- 8) The punctuator to separate statements
- 9) The punctuator to create an array
- 10) The label to separate case constant and statements
- 11) The punctuator for typecasting
- 12) The punctuator to refer an object

Answers

- 1) .
- 2) {}
- 3) ()
- 4) {}
- 5) ()
- 6) .
- 7) ,
- 8) ;
- 9) []
- 10) :
- 11) ()
- 12) .