

Question

Explain what is difference between Pass-by-value and Pass-by-reference argument passing to a function .show the difference by example.

Answer

Pass by Value: The method parameter values are copied to another variable and then the copied object is passed, that's why it's called pass by value.

Pass by Reference: An alias or reference to the actual parameter is passed to the method, that's why it's called pass by reference.

Example 1(Pass by Value)

```
public class MathFunction{
    public static void main(String[] args) {
        int original = 10;
        System.out.print("Original before: " + original);
        System.out.println();
        incrementValue(original);
        System.out.println("Original after: " + original);
    }

    static void incrementValue(int inFunction){
        inFunction ++;
        System.out.println("In function: " + inFunction);
    }
}
```

Example 1(Pass by Reference)

```
class RectangleDemo {
    public static void main(String args[]) {
        Rectangle r1 = new Rectangle(10, 20);
        r1.area(r1);
    }
}

class Rectangle {
    int length;
    int width;

    Rectangle(int l, int b) {
        length = l;
        width = b;
    }

    void area(Rectangle r1) {
        int areaOfRectangle = r1.length * r1.width;
        System.out.println("Area of Rectangle : "
                           + areaOfRectangle);
    }
}
```

Reference: <https://stackoverflow.com>

Answer provided by <https://www.AssignmentExpert.com>