

A decorative graphic on the left side of the slide, consisting of a network of white lines and small circles on a dark blue background, resembling a circuit board or a neural network.

METHOD OVERLOADING

zyBook 4.9

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METHOD OVERLOADING

Multiple methods with same name but **different number or type of parameters**.

```
/**
 * Prints the area of the given square
 *
 * @param area area of the square
 */
public static void printArea(int area) {
    System.out.println("Area = " + area + ".");
}

/**
 * Prints the area of the given square
 *
 * @param name name of the square
 * @param area area of the square
 */
public static void printArea(String name, int area) {
    System.out.println(name + ": Area = " + area + ".");
}
```

```

1  /**
2   * The class computes the area of three squares
3   *
4   * @author Jessica Young Schmidt
5   */
6  public class AreaOfSquare {
7
8      /**
9       * Starts the program.
10      *
11      * @param args command line arguments
12      */
13     public static void main(String[] args) {
14         // Side length for squares
15         int sideA = 10;
16         int sideB = 5;
17         int sideC = 11;
18
19         // Area for squares
20         int areaA = area(sideA);
21         int areaB = area(sideB);
22         int areaC = area(sideC);
23
24         // Print area for squares
25         printArea("Square A", areaA);
26         printArea("Square B", areaB);
27         printArea(areaC);
28     }
29
30     /**
31      * Returns the area of a square with given side length
32      *
33      * @param side length of side of square
34      * @return area of square with given side length
35      */
36     public static int area(int side) {
37         return side * side;
38     }
39
40     /**
41      * Prints the area of the given square
42      *
43      * @param area area of the square
44      */
45     public static void printArea(int area) {
46         System.out.println("Area = " + area + ".");
47     }
48
49     /**
50      * Prints the area of the given square
51      *
52      * @param name name of the square
53      * @param area area of the square
54      */
55     public static void printArea(String name, int area) {
56         System.out.println(name + ": Area = " + area + ".");
57     }
58
59 }

```

```

$ java -cp bin AreaOfSquare
Square A: Area = 100.
Square B: Area = 25.
Area = 121.

```