

2: Method declaration: The first line of a method that includes the access modifier, return type, method name, and parameters.

Example: `public static int add(int x, int y)`

Method body: The block of code inside `{ }` that tells the method what to do.

3: Access modifiers such as `public`, `private` and `protected`.

4. Visibility

5. var1: Local to `main()`. Only usable inside `main()`.

var2: Local to the for loop in `main()`. Only exists during each loop cycle.

var3: Local to `method1()`. Only usable inside `method1()`.

var4: Local to the for loop inside `method1()`.

6a: `public static int getVowels(String S)`

6b: `public static int extractDigit(int num)`

6c: `public static String insertString(String s, int num)`

7a: By the method signature: the method name + parameter types.

7b: Yes, if they have different parameter lists. This is called method overloading.

8a: To send a value back to the place where the method was called.

8b: Only 1

8c: Method with return value: must specify a return type (`int`, `String`, etc.) and must use `return`.

Void method: uses `void` and does not return a value.

9. Error: A return value method is called without using its returned value (not illegal, but usually incorrect in homework).

11a: True

11b: False, because a method call is when you use the method, not when you declare it.

11c: False, because `void` returns nothing.

11d: False, because an access modifier declares the return type of a method.

11e: True

11f: False, it is not curly brackets it is this parenthesis `"()`".

11g: False, because local variables exist only inside their method.

11h: True

11i: True

11j: True

11k: True

11l: True

