

Civilization advances by extending the number of operations we can perform without thinking about them.

-Alfred North Whitehead

Defining a Method

```
visibility type nameOfMethod(parameters) {  
    statements  
}
```

- *visibility*: usually **private** or **public**
- *type*: type returned by method (e.g., **int**, **boolean**, *etc.*)
 - Can be **void** to indicate that nothing is returned
- *parameters*: information passed into method

An Example of a Method

```
private double feetToInches(double feet) {  
    return 12 * feet;  
}
```

Multiple **return** statements

```
private int max(int val1, int val2) {  
    if (val1 > val2) {  
        return (val1);  
    } else {  
        return (val2);  
    }  
}
```

Predicate Methods

```
private boolean isOdd(int x) {  
    return ((x % 2) == 1);  
}
```

Methods That Don't Return Anything

```
private void printIntro() {  
    println("Welcome to CS106A");  
    println("It's the best part of my day.");  
}
```

Returning objects

```
// (x, y) denotes center point of filled circle
private GOval filledCircle(double x,
                           double y,
                           double r) {
    GOval circle = new GOval(x-r, y-r, 2*r, 2*r);
    circle.setFilled(true);
    return circle;
}
```

```
private GLabel coloredLabel(String text,
                             Color color) {
    GLabel label = new GLabel(text);
    label.setColor(color);
    return label;
}
```