# Incrementing Variables

## Incrementing Variables

Incrementing a variable means to change the value of a variable by a set amount. You will most often have a counting variable, which means you will increment by 1.

```
int a = 0;
a = a + 1;
System.out.print(a);
```

TRY IT

```
1
```

## How to Read `a = a + 1`

The variable `a` appears twice on the same line of code. But each instance of `a` refers to something different.


## The `++` and `+=` Operators

Incrementing is a common task for programmers. Many programming languages have developed a shorthand for `a = a + 1` because of this, `a++` does the same thing as `a = a + 1`.

```
int a = 0;
int b = 0;
a = a + 1;
b++;
System.out.println(a);
System.out.println(b);
```

TRY IT

```
1
1
```

In the cases you need to increment by a different number, you can specify it using the `+=` operator. You can replace `b++;` with `b+=1;` in the above code and get the same result.

### What happens if you:

- Change `b` such that `b+=2`?
- Change `b` such that `b+=-1`?
- Change `b` such that `b-=1`?

TRY IT

```
Command was successfully executed.
```

## Incrementing

Use the fewest characters possible to complete the code as described.

```
int evens = 0;
//add 2
evens +=2;
int all = 0;
//add 1
all++;
```

```
int evens = 0;
//add 2
evens+=2;
int all = 0;
//add 1
all++;
```

If you are incrementing by 1, the shortest way is the `++` operator, if you are incrementing by any other number (like 2) the shortest way is the `+=` operator.