

Regarding random numbers:

Case 1: To generate a random integer within a range

```
// define the range
```

```
int max = 10;
```

```
int min = 1;
```

```
int range = max - min + 1;
```

```
// generate random numbers within the range
```

```
int rand = (int)(Math.random() * range) + min;
```

```
=====
```

Case 2: If someone mistakenly reverse min and max, you could change the code to:

```
int randomWithRange(int min, int max) {
```

```
    int range = Math.abs(max - min) + 1;
```

```
    return (int)(Math.random() * range) + (min <= max ? min : max);
```

```
}
```

```
=====
```

Case 3: To generate a double within a range:

```
double randomWithRange(double min, double max) {
```

```
    double range = (max - min);
```

```
    return (Math.random() * range) + min;
```

```
}
```

```
=====
```

Case 4: If someone mistakenly reverse min and max, you could change the code to:

```
double randomWithRange(double min, double max) {
```

```
    double range = Math.abs(max - min);
```

```
    return (Math.random() * range) + (min <= max ? min : max);
```

```
}
```