

Key point: *The Boolean data type declares a variable with the value either **true** or **false**.*

Table 3.1 **Relational Operators**

Java Operator	Mathematical Symbol	Name	Example (radius is 5)	Result
<	<	Less than	radius < 0	false
<=	≤	Less than or equal to	radius <= 0	false
>	>	Greater than	radius > 0	true
>=	≥	Greater than or equal to	radius >= 0	true
==	=	Equal to	radius == 0	false
!=	≠	Not equal to	radius != 0	true

Example:

```
double lightsOn = true;  
System.out.println(radius > 0);           //Displays true
```

Example:

```
boolean radius = 1;
```

Listing 3.1 **AdditionQuiz**

```
1  import java.util.Scanner;  
2  
3  public class AdditionQuiz {  
4      public static void main(String[] args) {  
5          int number1 = (int)System.currentTimeMillis() % 10;  
6          int number2 = (int)System.currentTimeMillis() / 10 % 10;  
7  
8          //Create scanner  
9          Scanner input = new Scanner(System.in);  
10  
11         System.out.print("What is " + number1 + " + " + number2 + "? ");  
12  
13         int answer = input.nextInt();  
14  
15         System.out.println(number1 + " + " + number2 + " = " + answer + " is " +  
16             (number1 + number2 == answer));  
17     }  
18 }
```

```
run:  
What is 2 + 4? 6  
2 + 4 = 6 is true  
BUILD SUCCESSFUL (total time: 12 seconds)
```

```
run:  
What is 7 + 6? 12  
7 + 6 = 12 is false
```

BUILD SUCCESSFUL (total time: 6 seconds)