
◆ Step 1: Get Today's Date

JavaScript can get the current date and time from the user's computer using the Date object:

```
var today = new Date();
```

This stores **today's date and time** in the variable today.

◆ Step 2: Set the Future Date (Doomsday)

To compare dates, we create another Date object but for **June 30, 2035**:

```
var doomsday = new Date("June 30, 2035");
```

- The date is written inside **quotes**.
 - The **month** is spelled out.
 - The **day and year** are included.
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◆ Step 3: Convert Dates to Milliseconds

JavaScript keeps track of time using **milliseconds** since **January 1, 1970**. To compare two dates, we need their millisecond values:

```
var msToday = today.getTime();    // Milliseconds for today's date
var msDoomsday = doomsday.getTime(); // Milliseconds for June 30, 2035
```

◆ Step 4: Find the Difference

To calculate the time left, subtract today's milliseconds from the doomsday milliseconds:

```
var msDiff = msDoomsday - msToday;
```

Now, msDiff holds the **total number of milliseconds** remaining.

◆ Step 5: Convert Milliseconds to Days

We divide by **1000** (seconds), then **60** (minutes), then **60** (hours), and finally **24** (days):

```
var dDiff = msDiff / (1000 * 60 * 60 * 24);
```

◆ Step 6: Round Down

The result might be a decimal (e.g., 3423.9 days). We round it down to a whole number:

```
dDiff = Math.floor(dDiff);
```

This gives the **exact number of full days left**.

◆ Full Code (Shortened Version)

```
var msDiff = new Date("June 30, 2035").getTime() - new Date().getTime();  
var daysTillDoom = Math.floor(msDiff / (1000 * 60 * 60 * 24));
```

```
console.log("Days until Social Security runs out: " + daysTillDoom);
```

This code:

1. **Finds today's date.**
 2. **Finds the future date (June 30, 2035).**
 3. **Calculates the difference** in milliseconds.
 4. **Converts the difference** to days.
 5. **Rounds down** to get a whole number.
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◆ Extra: Setting a Specific Time

If you also want to include **hours and minutes**, you can specify them like this:

```
var d = new Date("July 21, 1983 13:25:00");
```

- Uses **24-hour format** (13:25:00 = 1:25 PM).
 - **No comma** after the date.
 - Uses **colons (:) for hours, minutes, and seconds**.
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- JavaScript gets today's date.
- It compares it to **June 30, 2035**.
- It finds the difference **in milliseconds**.
- It converts the difference to **days**.
- It rounds down to a whole number.
- The result is the **number of days left** until Social Security runs out.