

Mixing Numbers & Strings

You saw the example with a number and a "text number" being added

```
3 + '3' => '33'
```

in JavaScript.

That happens because the `+` operator also supports strings (for string concatenation).

It's the only arithmetic operator that supports strings though. For example, this will not work:

```
'hi' - 'i' => NaN
```

`NaN` is covered a little later, the core takeaway is that you can't generate a string of 'h' with the above code. Only `+` supports both strings and numbers.

Thankfully, JavaScript is pretty smart and therefore is actually able to handle this code:

```
3 * '3' => 9
```

Please note: It yields the number (!) `9`, NOT a string `'9'`!

Similarly, these operations also all work:

```
3 - '3' => 0
```

```
3 / '3' => 1
```

Just `3 + '3'` yields `'33'` because here JavaScript uses the *"I can combine text"* mode of the `+` operator and generates a string instead of a number.