# is-number [NPM version](https://www.npmjs.com/package/is-number) [NPM monthly downloads](https://npmjs.org/package/is-number) [NPM total downloads](https://npmjs.org/package/is-number) [Linux Build Status](https://travis-ci.org/jonschlinkert/is-number)

Returns true if the value is a finite number.

Please consider following this project's author, [Jon Schlinkert](https://github.com/jonschlinkert), and consider starring the project to show your :heart: and support.

## Install

Install with [npm](https://www.npmjs.com/):

$ npm install --save is-number

## Why is this needed?

In JavaScript, it's not always as straightforward as it should be to reliably check if a value is a number. It's common for devs to use +, -, or Number() to cast a string value to a number (for example, when values are returned from user input, regex matches, parsers, etc). But there are many non-intuitive edge cases that yield unexpected results:

console.log(+[]); //=> 0

console.log(+''); //=> 0

console.log(+' '); //=> 0

console.log(typeof NaN); //=> 'number'

This library offers a performant way to smooth out edge cases like these.

## Usage

const isNumber = require('is-number');

See the [tests](http://./test.js) for more examples.

### true

isNumber(5e3); // true

isNumber(0xff); // true

isNumber(-1.1); // true

isNumber(0); // true

isNumber(1); // true

isNumber(1.1); // true

isNumber(10); // true

isNumber(10.10); // true

isNumber(100); // true

isNumber('-1.1'); // true

isNumber('0'); // true

isNumber('012'); // true

isNumber('0xff'); // true

isNumber('1'); // true

isNumber('1.1'); // true

isNumber('10'); // true

isNumber('10.10'); // true

isNumber('100'); // true

isNumber('5e3'); // true

isNumber(parseInt('012')); // true

isNumber(parseFloat('012')); // true

### False

Everything else is false, as you would expect:

isNumber(Infinity); // false

isNumber(NaN); // false

isNumber(null); // false

isNumber(undefined); // false

isNumber(''); // false

isNumber(' '); // false

isNumber('foo'); // false

isNumber([1]); // false

isNumber([]); // false

isNumber(function () {}); // false

isNumber({}); // false

## Release history

### 7.0.0

* Refactor. Now uses .isFinite if it exists.
* Performance is about the same as v6.0 when the value is a string or number. But it's now 3x-4x faster when the value is not a string or number.

### 6.0.0

* Optimizations, thanks to @benaadams.

### 5.0.0

**Breaking changes**

* removed support for instanceof Number and instanceof String

## Benchmarks

As with all benchmarks, take these with a grain of salt. See the [benchmarks](http://./benchmark/index.js) for more detail.

# all

v7.0 x 413,222 ops/sec ±2.02% (86 runs sampled)

v6.0 x 111,061 ops/sec ±1.29% (85 runs sampled)

parseFloat x 317,596 ops/sec ±1.36% (86 runs sampled)

fastest is 'v7.0'

# string

v7.0 x 3,054,496 ops/sec ±1.05% (89 runs sampled)

v6.0 x 2,957,781 ops/sec ±0.98% (88 runs sampled)

parseFloat x 3,071,060 ops/sec ±1.13% (88 runs sampled)

fastest is 'parseFloat,v7.0'

# number

v7.0 x 3,146,895 ops/sec ±0.89% (89 runs sampled)

v6.0 x 3,214,038 ops/sec ±1.07% (89 runs sampled)

parseFloat x 3,077,588 ops/sec ±1.07% (87 runs sampled)

fastest is 'v6.0'

## About

**Contributing** Pull requests and stars are always welcome. For bugs and feature requests, [please create an issue](http://../../issues/new).

**Running Tests** Running and reviewing unit tests is a great way to get familiarized with a library and its API. You can install dependencies and run tests with the following command:

$ npm install && npm test

**Building docs** *(This project's readme.md is generated by* [*verb*](https://github.com/verbose/verb-generate-readme)*, please don't edit the readme directly. Any changes to the readme must be made in the* [*.verb.md*](http://.verb.md) *readme template.)*

To generate the readme, run the following command:

$ npm install -g verbose/verb#dev verb-generate-readme && verb

### Related projects

You might also be interested in these projects:

* [is-plain-object](https://www.npmjs.com/package/is-plain-object): Returns true if an object was created by the Object constructor. | [homepage](https://github.com/jonschlinkert/is-plain-object)
* [is-primitive](https://www.npmjs.com/package/is-primitive): Returns true if the value is a primitive. | [homepage](https://github.com/jonschlinkert/is-primitive)
* [isobject](https://www.npmjs.com/package/isobject): Returns true if the value is an object and not an array or null. | [homepage](https://github.com/jonschlinkert/isobject)
* [kind-of](https://www.npmjs.com/package/kind-of): Get the native type of a value. | [homepage](https://github.com/jonschlinkert/kind-of)

### Contributors

| **Commits** | **Contributor** |
| --- | --- |
| 49 | [jonschlinkert](https://github.com/jonschlinkert) |
| 5 | [charlike-old](https://github.com/charlike-old) |
| 1 | [benaadams](https://github.com/benaadams) |
| 1 | [realityking](https://github.com/realityking) |

### Author

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