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in operator

The **in operator** returns `true` if the specified property is in the specified object or its prototype chain.

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JavaScript Demo: Expressions - in operator

```
1 var car = {make: 'Honda', model: 'Accord', year: 1998};
2
3 console.log('make' in car);
4 // expected output: true
5
6 delete car.make;
7 if ('make' in car === false) {
8   car.make = 'Suzuki';
9 }
10
11 console.log(car.make);
12 // expected output: "Suzuki"
13
```

Run ›

Reset

```
> true
> "Suzuki"
```

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Parameters



prop

A string or symbol representing a property name or array index (non-symbols will be coerced to strings).

object

Object to check if it (or its prototype chain) contains the property with specified name.

Description

The following examples show some uses of the `in` operator.

```
1 // Arrays
2 var trees = ['redwood', 'bay', 'cedar', 'oak', 'maple'];
3 0 in trees      // returns true
4 3 in trees      // returns true
5 6 in trees      // returns false
6 'bay' in trees  // returns false (you must specify the index number, not the value at that index)
```

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```
14 var mycar = {make: 'Honda', model: 'Accord', year: 1998};
15 'make' in mycar // returns true
16 'model' in mycar // returns true
```

You must specify an object on the right side of the `in` operator. For example, you can specify a string created with the `String` constructor, but you cannot specify a string literal.

```
1 var color1 = new String('green');
2 'length' in color1 // returns true
3
4 var color2 = 'coral';
5 // generates an error (color2 is not a String object)
6 'length' in color2
```

Using `in` with deleted or undefined properties [🔗](#)

If you delete a property with the `delete` operator, the `in` operator returns `false` for that property.

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```
6 | delete trees[3];  
7 | 3 in trees; // returns false
```



If you set a property to `undefined` but do not delete it, the `in` operator returns `true` for that property.

```
1 | var mycar = {make: 'Honda', model: 'Accord', year: 1998};  
2 | mycar.make = undefined;  
3 | 'make' in mycar; // returns true
```

```
1 | var trees = new Array('redwood', 'bay', 'cedar', 'oak', 'maple');  
2 | trees[3] = undefined;  
3 | 3 in trees; // returns true
```

Inherited properties

The `in` operator returns `true` for properties in the prototype chain.

```
1 | 'toString' in {}; // returns true
```

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| | | |
|---|---|--|
| <div>ECMAScript Latest Draft (ECMA-262)</div> <div>The definition of 'Relational Operators' in that specification.</div> | <div><div>D</div><div></div></div> | |
| <div>ECMAScript 2015 (6th Edition, ECMA-262)</div> <div>The definition of 'Relational Operators' in that specification.</div> | <div><div>ST</div><div>Standard</div></div> | |
| <div>ECMAScript 5.1 (ECMA-262)</div> <div>The definition of 'The in Operator' in that specification.</div> | <div><div>ST</div><div>Standard</div></div> | |
| <div>ECMAScript 3rd Edition (ECMA-262)</div> <div>The definition of 'The in Operator' in that specification.</div> | <div><div>ST</div><div>Standard</div></div> | Initial definition. Implemented in JavaScript 1.4. |

Browser compatibility

[Update compatibility data on GitHub](#)


in

| | |
|--------|-----|
| Chrome | Yes |
| Edge | Yes |

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| | | |
|--------------------------|-----|--|
| Chrome Android | Yes |  |
| Firefox Android | 4 | |
| Opera Android | Yes | |
| Safari iOS | Yes | |
| Samsung Internet Android | Yes | |
| nodejs | Yes | |



Full support

See also

- [for...in](#)
- [delete](#)
- [Object.prototype.hasOwnProperty\(\)](#)

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