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`undefined`

INDICATE THAT A VALUE DOES NOT EXIST

`null`

A SPECIFIC VALUE THAT DOES EXIST, BUT IS NULL

`NaN`

"NOT A NUMBER" (BUT STILL A NUMBER,

`Infinity`

A SPECIAL VALUE, BIGGER THAN ANY NUMBER

EXAMPLE 31: UNDERSTANDING `undefined`

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`undefined` IS A SPECIAL VALUE FOR VALUES THAT DO NOT EXIST.

`undefined` IS NOT AN ERROR OR EXCEPTION, IT IS AN ACTUAL VALUE THAT YOU CAN TEST FOR

```
if(someVariable == undefined)
```

`undefined` IS A SPECIAL VALUE FOR VALUES THAT DO NOT EXIST.

CASE #1: A VARIABLE HAS BEEN DECLARED, BUT NOT INITIALISED, ITS VALUE IS `undefined`

```
var someVariable;  //undefined
```

`undefined` IS A SPECIAL VALUE FOR VALUES THAT DO NOT EXIST.

CASE #2: A FUNCTION HAS NO RETURN VALUE, BUT YOU ATTEMPT TO ACCESS IT - ITS VALUE IS `undefined`

```
function getPerimeter(rectangle) {
  var perimeter = 2*(rectangle.length + rectangle.bre
  // missing return statement
  // return perimeter;
}
var someVariable = getPerimeter(rectangle);
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CASE #3: A VARIABLE DOES NOT EXIST, AND YOU ATTEMPT TO USE ITS VALUE, IT WILL BE `undefined`

```
console.log(“Value of a non-existent variable = “ +
noSuchVar);
```

`undefined` IS A SPECIAL VALUE FOR VALUES THAT DO NOT EXIST.

CASE #4: A FUNCTION DOES NOT EXIST, AND YOU ATTEMPT TO CALL IT - AN ERROR RESULTS - NOT `undefined`

```
nonExistentFunction();
```

```
▶ Uncaught ReferenceError: nonExistentFunction is not defined
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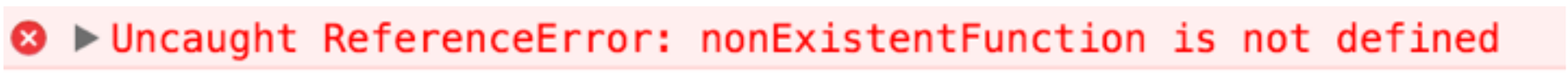

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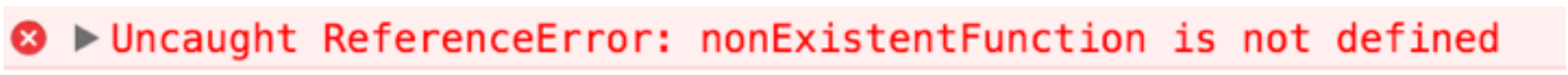

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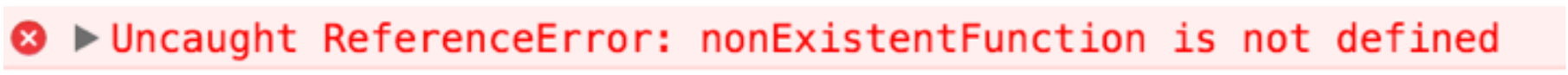

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CASE #5: YOU ATTEMPT TO ACCESS A NON-EXISTENT PROPERTY OF AN OBJECT - `undefined`

```
console.log(rectangle.radius);
```

BTW, THIS IS TRUE WHETHER THE PROPERTY NEVER EXISTED, OR EVEN IF IT DID EXIST, BUT WAS DELETED.

`undefined` IS A SPECIAL VALUE FOR VALUES THAT DO NOT EXIST.

CASE #6: YOU CALL THE `typeof` OPERATOR ON SOMETHING THAT IS `undefined` ALSO - `undefined`

```
 console.log("Type of undefined is ... wait for it.. " + (typeof unInitialisedVariable))
```

```
Type of undefined is ... wait for it.. undefined
```