

Antwoorden Essential JavaScript Principles and Practices 3

Vraag 1 van 22

In JavaScript, what term is used to describe the technique of changing variables from one data type to another?

- A. Concatenating.
- B. Initializing.
- C. Parsing.
- D. Casting.

Antwoordtoets: D

Feedback:

In JavaScript, casting is a technique for variable control in which a variable's value is changed from one data type to another. In some situations, you need to make the browser interpret variables in a different way. For example, you may need to convert a string value into a numeric value for the purpose of calculations, or you may need to convert a numeric value to a string value. Concatenation is linking two or more strings to form one unit or string, as opposed to adding numerals. (Bron: <https://www.ciwcertified.com/>)

Vraag 2 van 22

Consider the following code block:

```
function sample(a, b) {  
    a++;  
    b++;  
    return a + b;  
}
```

Which of the following expressions is an equivalent of the sample() function?

- A.

```
var sample = function (m, n) {  
    return m++ + n++;  
}
```
- B.

```
var sample => (m, n) = {  
    return ++m + ++n;  
}
```
- C.

```
var sample = (m, n) => ++m + ++n;
```
- D.

```
function sample = (m, n) {  
    return ++m + ++n;  
}
```

Antwoordtoets: C

Feedback:

The following expression represents an arrow function:

```
var sample = (m, n) => ++m + ++n;
```

Other expressions are either syntactically incorrect or will return incorrect values of variables. In the given code block, the value of the variables **a** and **b** is incremented before returning. The pre-increment operators modify the value of the variables before using them. The following expression will not increment the value before returning:

```
var sample = function (m, n) { return m++ + n++; }
```

(Bron: <https://www.ciwcertified.com/>.)

Vraag 3 van 22

What is an argument in JavaScript?

- A. A value passed into a function from outside the function.
- B. Any method that returns a value.
- C. A named block of code that can be called.
- D. A statement that transfers program execution to a subroutine.

Antwoordtoets: A

Feedback:

An argument is a value passed into a function from outside the function. The curly braces **{ }** in a function must encompass any statements that are to execute as part of that function. Parentheses **()** must follow the user-defined function name. These parentheses are used to receive arguments, but a function does not necessarily have to take or use them. Arguments (often referred to as parameters) are pieces of data that the function receives and manipulates within the function. A function can receive as many arguments as it needs to perform its task. (Bron: <https://www.ciwcertified.com/>.)

Vraag 4 van 22

Consider the following code block:

```
function example() { const x = 10;
  return x;
}
var x = 15;
document.write(example());
```

What will be the output of this code snippet?

- A. SyntaxError
- B. 15
- C. Random, either 10 or 15
- D. 10

Antwoordtoets: D

Feedback:

Since the constant **x** is locally declared, it will not cause a syntax error. The function will return the value **10**, which is assigned to the variable **x** inside the **example()** function. So, the output will be 10. (Bron: <https://www.ciwcertified.com/>.)

Vraag 5 van 22

Consider the following JavaScript function:

```
function myFunction(x) {
  //Insert Code Here
}
```

Which code statement should be added to the function to return to the value of **x** multiplied by 2 to the calling statement?

- A. `return x * 2`
- B. `x * 2`
- C. `myFunction = x * 2`
- D. `x = x * 2`

Antwoordtoets: A

Feedback:

The statement that should be added to the given JavaScript function to return to the value of **x** multiplied by **2** to the calling statement is **return x * 2**. JavaScript functions can return values to the calling statement using the **return** statement. The

value to be returned is placed after the return keyword. The value that is returned from a function can be assigned to a variable or it can be used in an expression. (Bron: <https://www.ciwcertified.com/>)

Vraag 6 van 22

Consider the following code block:

```
function sample(a, b) {  
    a++;  
    b++;  
}  
var a = 10, b = 15;  
sample(a, b);  
document.write(a + b);
```

What will be the output of this code block?

- A. 1.015
- B. 1.116
- C. 27
- D. 25

Antwoordtoets: D

Feedback:

The expression **var a = 10, b = 15;** assigns the values **10** and **15** to variables **a** and **b**, respectively. When the **sample()** function is called, the values of local variables (variables local to the **sample()** function block) **a** and **b**, inside the function, is incremented by 1 each. This increment does not affect the global variables **a** and **b**. Finally, the values passed to the **document.write()** method are both numbers, hence the output is **25**. (Bron: <https://www.ciwcertified.com/>)

Vraag 7 van 22

Consider the following HTML code:

```
<form onclick="alert('form')">Form
<div onclick="alert('div')">Div
    <p onclick="alert('p')"><br />Paragraph</p>
</div>
</form>
```

When the <p> element is clicked, which element in the code captures the event first?

- A. <form>
- B. <p>
- C. <div>
- D.

Antwoordtoets: A

Feedback:

The **onclick** event is first captured by the **<form>** element. Event capturing starts at the highest level in the DOM hierarchy tree (generally, the Window object). (Bron: <https://www.ciwcertified.com/>.)

Vraag 8 van 22

What does the term loosely typed language mean?

- A. It is not necessary to declare the data type of a variable before using it.
- B. The data type of a variable remains unchanged throughout the script.
- C. The variable declaration process does not have any syntax.
- D. Variables can have the same name as keywords in JavaScript.

Antwoordtoets: A

Feedback:

JavaScript is a loosely typed language, which means that there is no need to declare the type of a variable before using it. It automatically types a variable based on what kind of information is assigned to it. (Bron: <https://www.ciwcertified.com/>.)

Vraag 9 van 22

Consider the following code:

```
<script type="text/javascript">
function dateTodayTomorrow(a, b){
    a.concat(b);
    return a.valueOf();
}
alert(dateTodayTomorrow('Wednesday', 'Thursday'));
</script>
```

What will the alert box display when this script is run in a browser?

- A. Wednesday
- B. WednesdayThursday
- C. Thursday
- D. ThursdayWednesday

Antwoordtoets: A

Feedback:

The alert box will display the value of **a** only i.e. **Wednesday**, even though in the previous line there was a concatenation. But the concatenated value is not assigned to the variable **a**, so the initial value of the variable **a** will not be changed. Thus, **Wednesday** will be displayed in the alert box when the given script is run in the browser. (Bron: <https://www.ciwcertified.com/>)

Vraag 10 van 22

Consider the following code block:

```
function sample (fname, lname) {
    return fname + lname;
}
document.write(sample(prompt("Please enter your first name:"), prompt("Please enter your last name:")));
```

What will be the output, if a user enters "Sam" and "Smith" at the two prompts given in the code?

- A. ReferenceError
- B. "sample(prompt("Please enter your first name:"), prompt("Please enter your last name:"))
- C. SamSmith
- D. fnamelname

Antwoordtoets: C

Feedback:

The **document.write()** method calls the **sample()** function. The values passed to the **sample()** function are the strings returned by the **prompt()** method, which are **Sam** and **Smith** for the first and second prompts, respectively.

The **sample()** function concatenates these strings and returns **SamSmith** to the **document.write()** method, which displays it in the browser. (Bron: <https://www.ciwcertified.com/>.)

Vraag 11 van 22

Which of the following functions is created at runtime and declared without a name?

- A. Prototype.
- B. Anonymous.
- C. Closure.
- D. None of these.

Antwoordtoets: B

Feedback:

Anonymous functions are declared without a name. When a page is rendered, the function definitions are hoisted and all functions are created at runtime. In JavaScript named function, declarations are hoisted, so that they can be used before they are defined in the code. Whereas, anonymous functions are not hoisted in JavaScript and function expressions are created at runtime, so they cannot be used before they are defined in the code. Anonymous functions are declared without a name. (Bron: <https://www.ciwcertified.com/>.)

Vraag 12 van 22

A function block is enclosed within:

- A. ()
- B. {}
- C. []
- D. <>

Antwoordtoets: B

Feedback:

A function block is enclosed within **{ }** (curly braces). This block is executed after a function is called. (Bron: <https://www.ciwcertified.com/>.)

Vraag 13 van 22

What will be the output of the following code snippet?

```
var x = 10, y = "10.1x", z = "15xy";  
var a = x + parseInt(y) + parseFloat(z);  
document.write(a);
```

- A. 1010.115
- B. 1210.1x15xy
- C. 35
- D. 35.1

Antwoordtoets: C

Feedback:

The **parseInt(y)** method returns 10, and the **parseFloat(z)** method returns 15. Now, all variables in the expression given below are numbers:

```
var a = x + 10 + 15; // equals 35
```

So, the output will be 35. (Bron: <https://www.ciwcertified.com/>.)

Vraag 14 van 22

Which JavaScript property is used to add new properties and methods to objects?

- A. call
- B. this
- C. apply
- D. prototype

Antwoordtoets: D

Feedback:

The **prototype** property is used to add new properties and methods to objects. New methods and functions are attached to the **prototype** property of the object. These methods and functions are then automatically added to the object itself. (Bron: <https://www.ciwcertified.com/>.)

Vraag 15 van 22

What is casting in JavaScript?

- A. Changing a variable from one data type to another.
- B. Repairing corrupted user input.
- C. Creating functions molded to pre-defined algorithms.
- D. Declaring all variables and creating all objects before programming procedures.

Antwoordtoets: A

Feedback:

Casting refers to a way of changing a variable from one data type to another. In some situations, you may require the browser to interpret variables in a different way. For example, you may require a string value to be converted into a numeric value for the purpose of calculations, or you may require a numeric value to be converted to a string value. You can do this with a technique for variable control called casting. Essentially, you cast a variable from one type to another. (Bron: <https://www.ciwcertified.com/>)

Vraag 16 van 22

Consider the code below:

```
function sample() {  
    return fname + lname;  
}  
var fname = prompt("Please enter your first name:");  
var lname = prompt("Please enter your last name:");  
document.write(sample());
```

What will be the output of the code, if a user enters "Adam" and "Warlock" at the two prompts?

- A. AdamWarlock
- B. fnamelname
- C. ReferenceError: fname not defined
- D. Nothing, blank screen

Antwoordtoets: A

Feedback:

The variables, namely, **fname** and **lname** are defined using **var** and have a global scope. So, the **sample()** function will have no problem while accessing them. And the variables **fname** and **lname** have been assigned the values **Adam** and **Warlock**, respectively. So, the output of the code snippet will be **AdamWarlock**. (Bron: <https://www.ciwcertified.com/>)

Vraag 17 van 22

Which code snippet demonstrates the correct syntax for a user-defined JavaScript function my_function?

- A.

```
function my_function() {  
    alert("test function");  
}
```
- B.

```
function my_function()  
    alert("test function");  
}
```
- C.

```
function my_function() [  
    alert("test function");  
    alert(username);  
]
```
- D.

```
function my_function [] {  
    alert("test function");  
}
```

Antwoordtoets: A

Feedback:

The correct answer is:

```
function my_function() {  
    alert("test function");  
}
```

The generic syntax for a JavaScript user-defined function is as follows:

```
function functionName(argument1, argument2, ...) {  
    //statement(s) here  
}
```

(Bron: <https://www.ciwcertified.com/>)

Vraag 18 van 22

What is the technique of changing the data type of a variable called in JavaScript?

- A. Parsing.
- B. Converting.
- C. Hoisting.
- D. Casting.

Antwoordtoets: D

Feedback:

The process of converting a data type into another is known as casting. (Bron: <https://www.ciwcertified.com/>)

Vraag 19 van 22

Which keyword points to the current owner of a function or an object?

- A. own
- B. that
- C. this
- D. _this

Antwoordtoets: C

Feedback:

The **this** keyword points to the current owner of a function, an object, a variable, code etc. It can also be used explicitly to specify the owner (or parent). (Bron: <https://www.ciwcertified.com/>)

Vraag 20 van 22

When does the load event occur?

- A. When a page finishes loading.
- B. When a form in the page finishes loading.
- C. When the Submit button is clicked to load the form data.
- D. When a plugin is loaded in the page.

Antwoordtoets: A

Feedback:

The **load** event occurs when a document (page) finishes loading in the browser. When the Submit button in a form is clicked, the **submit** event is triggered. (Bron: <https://www.ciwcertified.com/>)

Vraag 21 van 22

Consider the following HTML code:

```
<form onclick="alert('form')">Form
  <div onclick="alert('div')">Div
    <p onclick="alert('p')">Paragraph</p>
  </div>
</form>
```

When the `<p>` element in the code is clicked, which element's onclick event will run first?

- A. `<form>`
- B. `<div>`
- C. `<p>`
- D. The onclick event of all three elements will be triggered at the same time.

Antwoordtoets: C

Feedback:

The **onclick** event on the `<p>` element will be triggered first. This is called event bubbling. An event bubbles from the innermost element to the outermost element in the DOM hierarchy. (Bron: <https://www.ciwcertified.com/>.)

Vraag 22 van 22

How does a global variable differ from a local variable?

- A. You can access a global variable value from any function or `<script>` block that you define on the HTML page.
- B. You declare a local variable outside any function.
- C. You declare a global variable within a function.
- D. You can access a local variable value from any function or `<script>` block that you define on the HTML page.

Antwoordtoets: A

Feedback:

Global variables can be accessed throughout the page, in any function of a code block. (Bron: <https://www.ciwcertified.com/>.)