Antwoorden Essential JavaScript Principles and Practices 2

Vraag 1 van 38
What does the operator === mean?

A. The value of the right operand is assigned to the left operand.

B. The operands on either side are equal in either value or data type.

C. The operands on either side are equal in both value and data type.

D. The operands on either side are equal in value but not necessarily in data type.

   Antwoordtoets: C

Feedback:

The === operator checks to make sure that both operands are strictly (or exactly) equal, in both value and data type. For example,
var number1 = (1 == "1") is true (due to conversion of value)
var number1 = (1 === "1") is false because it must be exactly equal. *(Bron: https://www.ciwcertified.com/.)*

Vraag 2 van 38
Which of the following variables will be present as a property on the window object?

A. `var x = 5;`

B. `let y = 2;`

C. `const z = 1;`

D. `let w;`

   Antwoordtoets: A

Feedback:

Variables declared using the **var** keyword are present as properties on the **window** object. Therefore, **var x = 5;** will be present as a property on the **window** object. *(Bron: https://www.ciwcertified.com/.)*

Consider the following code:

```
firstNumber = prompt("Enter a number" , "");
secondNumber = prompt("Enter another number" , "");
alert("The sum of two numbers is " + (firstNumber +
secondNumber) + ".");
```

Assume that you input the numbers 2 and 3 when the script is run in the browser. What is the possible result of this script?

A. The sum of two numbers is 5.

B. The sum of two numbers is 6.

C. The sum of two numbers is 23.

D. The sum of two numbers is undefined.

Antwoordtoets: C

Feedback:

The **prompt()** method returns a string unless specifically instructed otherwise, so the numbers **2** and **3** will most likely be cast as strings instead of numerals, and the + operator will concatenate them **(2+3=23)** instead of adding them **(2+3=5)**. *(Bron: https://www.ciwcertified.com/.)*

Which example demonstrates the correct syntax for declaring a variable?

A. var @lastName;

B. var 2lastName;

C. var .last_name;

D. var _LAST_name;

Antwoordtoets: D

Feedback:

JavaScript has basic rules that must be followed in declaring variables. The first character of the variable must be a letter, the underscore (_) character, or the dollar ($) character. Subsequent letters can be letters, numbers, and/or underscore characters. The common naming convention in JavaScript is to use two words with no spaces between them and capitalize the second word but not the first; this convention is called camel case (e.g., camelCase). *(Bron: https://www.ciwcertified.com/.)*

What is a named memory block that serves as a container for a value called?

A. Data type.

B. Variable.

C. Operator.

D. Event.

Antwoordtoets: B

Feedback:

A variable is a named block in the memory that is used to contain values. This value can be accessed in the script. *(Bron: https://www.ciwcertified.com/.)*

Which of the following statements declares a variable whose value can't be altered throughout the script?

A. `let x = 10;`

B. `const x = 5;`

C. `const x; x = 10;`

D. `var const = 5;`

Antwoordtoets: B

Feedback:

The value of a variable declared using the **const** keyword cannot be changed and must be assigned at the time of declaration. Options `const x; x = 10;` and `var const = 5;` are incorrect because they are declared incorrectly. *(Bron: https://www.ciwcertified.com/.)*

Which of the following is an arithmetic operator?

A. &&

B. %=

C. ||

D. !

Antwoordtoets: B

Feedback:

%= is an assignment arithmetic operator. **&&** (AND), **||**(OR), and **!** (NOT) are logical operators that operate on Boolean values. *(Bron: https://www.ciwcertified.com/.)*

Vraag 8 van 38

Consider the following JavaScript statement:

```
document.write(8 / 4 * 2 + 2 / 2);
```

What is the output of this statement?

A. 5.

B. 2.

C. 3.

D. 1.5.

     Antwoordtoets: A

Feedback:

The output of the given statement is **5**. Based on operator precedence, the expression is calculated as follows:

```
((8/4) * 2) + (2/2) = (2*2) + 1 = 4 + 1 = 5
```

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

Vraag 9 van 38

Which among the following operators is of the highest precedence?

A. ++

B. >>

C. ==

D. ? :

     Antwoordtoets: A

Feedback:

Feedback: The increment operator(**++**) takes the highest precedence in the expression among all the other operators specified here. The order of precedence for the given operators is **++** (High) > **>>** > **==** > **?:** (Low). *(Bron: https://www.ciwcertified.com/.)*

Consider the following code:

```
weather = confirm("Click OK if it is raining" );
alert("I looked outside and the weather report is " +
weather);
```

What is a possible result of this code when it is run in a browser?

A. I looked outside and the weather report is OK.

B. I looked outside and the weather report is true.

C. I looked outside and the weather report is wrong.

D. I looked outside and the weather report is canceled.

Antwoordtoets: B

Feedback:

The **confirm()** method returns only two possible values: true or false. So, the result of the given code will be:

```
I looked outside and the weather report is true
```

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

Which of the following is true of the prompt() method?

A. It returns Boolean values.

B. It will always return a string value.

C. If the prompt window closed without entering any value (without using OK or Cancel), it returns an empty string.

D. If the OK button is clicked without entering any value, it returns an empty string.

Antwoordtoets: D

Feedback:

The **prompt()** method returns the following values:

null: When the prompt window closed without entering any value (without using OK or Cancel).
string: When the user enters a string and clicks OK.
empty string: When the OK button is clicked without entering any value.

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

What is the value returned by the following expression?

```
(0 > 1) ? x : y
```

A. x

B. True

C. y

D. False

Antwoordtoets: C

Feedback:

The ternary operator takes three operands. If the expression evaluates to true, the expression to the left of : is returned, else the expression to the right of : is returned. *(Bron: https://www.ciwcertified.com/.)*

Consider the following code:

```
var myVar = 2;
myVar += "3";
```

What is the value of myVar after execution?

A. 2.

B. 3.

C. 5.

D. 23.

Antwoordtoets: D

Feedback:

When adding a numeric value to a string, the resulting type is a string containing the concatenation of both values. Therefore, in this example, the value of **myVar** will be **23** instead of **5**. *(Bron: https://www.ciwcertified.com/.)*

Which of the following cannot be used to perform concatenation in JavaScript?

A. ++

B. +

C. +=

D. concat()

Antwoordtoets: A

Feedback:

The **++** (increment) operator cannot be used to perform concatenation, because this operator increases the value of the operand by 1. *(Bron: https://www.ciwcertified.com/.)*

Which of the following values cannot be stored in a primitive data type?

A. "id_name"

B. 0X41AC (hexadecimal value)

C. null

D. ["Adam", "Smith", 42, "Livingston St."]

Antwoordtoets: D

Feedback:

["Adam", "Smith", 42, "Livingston St."] represents an array and cannot be stored in any primitive data types. The Array data type must be used to store this value. 0X41AC is a hexadecimal number and can be stored as a Number data type. "id_name" is a String type value and null is a primitive data type in itself. *(Bron: https://www.ciwcertified.com/.)*

Consider the following code:

```
<script type="text/javascript">
var message = "Hello ",message2 = "World";
document.write(message + message2);
</script>
```

What will be the result of this script when run in a browser?

A. Hello

B. Hello World

C. An error, because the variables are not properly declared

D. An error, because concatenation requires the & operator

Antwoordtoets: B

Feedback:

This script will return **Hello World**. The concatenation operator **(+)** is correct and the variables are declared with shorthand. *(Bron: https://www.ciwcertified.com/.)*

Which of the following operators is an assignment operator?

A. +=

B. +

C. %

D. ==

Antwoordtoets: A

Feedback:

The **+=** operator is an assignment operator. Expressions with assignment operators assign the result of the expression on the right of the operator to the left operand. All arithmetic operators become assignment operators when placed in front of the **=** character. Thus, **+=** is an addition assignment operator that adds together the operands and assigns the result to the left operand. *(Bron: https://www.ciwcertified.com/.)*

Vraag 18 van 38

Which of the following will return the last value in an array of size 10?

A. arr[last];

B. arr[9];

C. arr[10];

D. arr[11];

Antwoordtoets: B

Feedback:

Each element in an array can be accessed using its index number. The index value of an array can be calculated as **size_of_the_array -1**, because the indexing in arrays starts at 0. So, the last element in an array of size 10 will have the index value as 10 - 1 = 9. *(Bron: https://www.ciwcertified.com/.)*

Vraag 19 van 38

Which of the following methods lets you convey information to a user and doesn't record the user's response?

A. prompt()

B. alert()

C. confirm()

D. open()

Antwoordtoets: B

Feedback:

The **alert()** method allows you to communicate with the user by displaying a message. It requires no response. *(Bron: https://www.ciwcertified.com/.)*

Vraag 20 van 38

Which of the following JavaScript operators checks if the two operands are strictly equal to each other?

A. ===

B. ==

C. =

D. !==

Antwoordtoets: A

Feedback:

The **===** operator checks if the two operands are exactly (strictly) equal to each other, in terms of both data type and value. Refer to the example below:

```
console.log(1 === 1);
// expected output: true

console.log('1' === 1);
// expected output: false
```

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

Vraag 21 van 38

Consider the following code snippet:

```
var myVar;
myVar = confirm("continue?");
```

What is the data type of the value of myVar after execution?

A. Boolean.

B. Bit.

C. Depends on the user's input.

D. Undefined.

Antwoordtoets: A

Feedback:

The **confirm()** method returns a value of type Boolean. Boolean values are true and false, and the **confirm()** method results in only these two values. This method is used to get a true or false (yes or no) type input from a user using a pop-up dialog box. *(Bron: https://www.ciwcertified.com/.)*

Vraag 22 van 38

Which of the following statements is true of semicolons in JavaScript?

A. Each statement in JavaScript must end in a semicolon.

B. Semicolons can be used to concatenate strings and store in a variable.

C. Semicolons are essential while combining separate statements in a line.

D. The conditional operator uses semicolons to differentiate between the code to execute how an expression evaluates.

Antwoordtoets: C

Feedback:

Semicolons are used to separate statements in a script. Their use is optional when there is only one statement in a single line of code. However, if a single line contains more than one statement, they must be separated using a semicolon. *(Bron: https://www.ciwcertified.com/.)*

Vraag 23 van 38

Consider the following code.

```
var counter = 0;
document.write(counter++);
document.write(counter++);
document.write(counter++);
```

What will be the result of this code snippet when run in the browser?

A. 012

B. 123

C. 000

D. 0++0++0++

Antwoordtoets: A

Feedback:

The result of this code will be 012. The increment operator **(++)** increases the value of the supplied operand by one. If the increment operator is placed before the operand, then the operation occurs immediately. If the increment operator is placed after the operand, then the change in the operand's value is not apparent until the next time the operand is accessed in the program. In this example, the script would write 0 as the first value because the increment operator is placed after the operand **(counter)**, so the incremented value does not appear until the second time the variable counter is accessed in the program. *(Bron: https://www.ciwcertified.com/.)*

Vraag 24 van 38

Considering a Boolean value that is true, which of the following casting rules is incorrect while concatenating?

A. "string" + 3 equals "string3"

B. "string" + true equals "stringtrue"

C. 1 + 4 equals 5

D. 9 + true equals "9true"

Antwoordtoets: D

Feedback:

When a Boolean or a number is added to a string, it is first cast into a string then concatenated. When a number is added to a Boolean value, the Boolean value is cast into a number first, i.e., **true** as 1 and **false** as 0. So, the expression 9 + true will equal to 10. *(Bron: https://www.ciwcertified.com/.)*

Vraag 25 van 38

Consider the following code snippet:

```
var myVar1 = "25";
          var myVar2 = 25;
```

What is the difference between myVar1 and myVar2?

A. Data type.

B. No difference.

C. Value.

D. Scope.

   Antwoordtoets: A

Feedback:

The data type is different for **myVar1** and **myVar2, myVar1** is a **string** type and **myVar2** is a **number** type. When assigning literal values to variable names, you place string values inside quotation marks. Numeric values are not placed inside quotation marks. *(Bron: https://www.ciwcertified.com/.)*

Vraag 26 van 38

Which of the following statements is true of the undefined data type?

A. It assigns a string value "undefined" to the variable with data type as undefined.

B. It is not similar to the null data type in any aspect.

C. It is the value taken by the variables that don't have any value assigned to them.

D. It defines a value that does not exist.

   Antwoordtoets: C

Feedback:

If a value is not defined for a variable at the time of declaration, it takes the undefined data type as its value. *(Bron: https://www.ciwcertified.com/.)*

Which data type is a variable that has no value assigned to it yet?

A. null

B. string

C. boolean

D. undefined

Antwoordtoets: D

Feedback:

The **undefined** data type occurs when a variable has no value assigned yet. Whenever a variable is created but no value is assigned to it, it takes the value undefined:

```
var x;
x == undefined //returns true
x == "undefined" //returns false
typeof(x) == "undefined" //returns true
```

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

Consider the following code snippet:

```
var age = 18;
            var testValue = (age < 21) ? 'Teenager':
'Adult';
```

What is the value of testValue in the given code snippet after execution?

A. Teenager

B. 18

C. 21

D. true

Antwoordtoets: A

What are JavaScript keywords?

A. Standardized patterns for naming variables.

B. Key-value pairs that have specific uses.

C. Special words that cannot be used as identifiers.

D. Special keys that authenticate the JavaScript code.

Antwoordtoets: C

Feedback:

Keywords are special words in JavaScript that cannot be used as identifiers. They possess a special meaning for the parser and their syntax rules must be followed when using them. *(Bron: https://www.ciwcertified.com/.)*

Vraag 30 van 38
Which of the following declares a variable with global scope?

A. let var1 = 15;

B. const var2 = 15;

C. var var3 = 15;

D. global var4 = 15;

Antwoordtoets: C

Feedback:

Variables declared using the **var** keyword are hoisted to a global scope. By default, variables declared using the **const** and **let** keywords have block scope. *(Bron: https://www.ciwcertified.com/.)*

Vraag 31 van 38
Which of the following statements is true of JavaScript keywords and/or reserved words?

A. You cannot use reserved words as names for objects.

B. You can use reserved words as names for variables.

C. You can use reserved words but not keywords as names for objects.

D. All keywords are specific to particular versions of JavaScript.

Antwoordtoets: A

Feedback:

Keywords are the predefined identifiers that form the foundation of JavaScript. They perform unique duties such as declaring variables **(var)** and defining functions **(function)**. Reserved words have special meaning for the interpreter and they cannot be used as identifiers or names for objects. You cannot use reserved words like variables, functions, objects, or methods. *(Bron: https://www.ciwcertified.com/.)*

In the given variable declaration, which of the following is the object?

```
var cert = {vendor:"CIW"; id:"1d0-735"; name:"JavaScript
Specialist";}
```

A. cert

B. vendor

C. CIW

D. vendor, name, id

Antwoordtoets: A

Feedback:

In the given expression, **cert** is the object. The given expression is called an object declaration. It contains values in **key:value (name:value)** pairs. **Vendor, id,** and **name** are properties of the object **cert**. *(Bron: https://www.ciwcertified.com/.)*

Which of the following is true of the variables declared using let and const?

A. Variables declared using let have block scope, but the variables declared using const have a global scope.

B. Variables declared using const must be initialized at the declaration, while the variables declared using let can be initialized anywhere.

C. Variables declared using const are hoisted but the variables declared using let are not.

D. Values of variables declared using const or let cannot be changed.

Antwoordtoets: B

Feedback:

Variables declared using **const** must be initialized at the declaration, while the variables declared using **let** can be initialized anywhere. Variables declared using let or **const**, both, have block scope. Neither the variables declared using const, nor the variables declared using **let**, are hoisted. Variables declared using const have their value fixed, but the values of variables declared using **let** can be changed. *(Bron: https://www.ciwcertified.com/.)*

Consider the following code:

```
var myVar = (3 < 5) ? 3 : 5;
```

What is the value of myVar after the execution of this script?

A. 2

B. 3

C. 5

D. 35

    Antwoordtoets: B

Feedback:

The conditional or ternary operator (**?**) makes decisions in a script. In the given expression, the condition **3 < 5** will return **true**, therefore the value **3** will be printed. *(Bron: https://www.ciwcertified.com/.)*

Which of the following data types is a non-primitive data type?

A. array

B. string

C. null

D. number

    Antwoordtoets: A

Feedback:

Arrays are special objects that can store more than one value at a time (a list of values) and **objects** are data structures that have their own methods and properties. Non-primitive, or reference data types, don't store the value, but store a reference to that value, therefore, **arrays** are non-primitive data type. *(Bron: https://www.ciwcertified.com/.)*

Which JavaScript operator indicates concatenation?

A. +

B. =

C. ++

D. &&

Antwoordtoets: A

Feedback:

Concatenation is used frequently in JavaScript to combine text strings. Depending on the operands, **+** is the operator for arithmetic addition or string concatenation. When used for concatenation, the plus **(+)** operator combines the operands into a single string. *(Bron: https://www.ciwcertified.com/.)*

Which of the following is NOT a valid variable name in JavaScript?

A. this

B. that

C. _this

D. _that

Antwoordtoets: A

Feedback:

The word **this** is a reserved word in JavaScript and thus cannot be used as a variable name. The other three choices can all be used as variable names. The underscore in _**this** excludes it as the reserved word. *(Bron: https://www.ciwcertified.com/.)*

What is the return type of the confirm() method?

A. Integer

B. String

C. Boolean

D. Null

Antwoordtoets: C

Feedback:

The **confirm()** method's return type is Boolean. It returns either the true or false value, depending on the user's response. *(Bron: https://www.ciwcertified.com/.)*