

## Antwoorden Intermediate JavaScript Programming Techniques 4

### Vraag 1 van 34

You need to create a comma-delimited list from an array of values. Which function will accomplish this?

- A. `myArray.join(",");`
- B. `myArray.split(",");`
- C. `myArray.replace(",");`
- D. `myArray.delimit(",");`

Antwoordtoets: A

### Feedback:

The correct function is **`myArray.join(",");`**. The **`join()`** method creates a string of an array's values. The `join()` method requires a single argument: The character that will act as the separator for the element's values. Consider the following example:

```
var myArray = new Array("value 1", "value 2", "value 3");
var myArrayString = myArray.join(",");
document.write(myArrayString);
```

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

### Vraag 2 van 34

Consider the following code:

```
var firstArray = ["Sabrina", "Kelly", "Jill"]
var secondArray = firstArray;
secondArray.push("Kris");
alert(secondArray);
```

What output will be displayed in the alert box when this script is run in the browser?

- A. Kris, Kelly, Jill.
- B. Sabrina, Kris, Jill.
- C. Sabrina, Kelly, Jill, Kris.
- D. Kris, Sabrina, Kelly, Jill.

Antwoordtoets: C

### Feedback:

The alert box will display **Sabrina, Kelly, Jill, Kris**. The **`push`** method adds the element to the end of the array. (Bron: <https://www.ciwcertified.com/>.)

### Vraag 3 van 34

Which of the following demonstrates the correct way to declare a regular expression?

- A. `var ex = /Ringo/;`
- B. `var ex = \Ringo\;`
- C. `var ex = "Ringo".RegExp();`
- D. `var ex = RegExp("Ringo");`

Antwoordtoets: A

### Feedback:

Of the choices given, the correct way is **`var ex = /Ringo/;`**. One way of declaring a new regular expression is to enclose the string in forward slashes (**/**). (Bron: <https://www.ciwcertified.com/>.)

### Vraag 4 van 34

How do the `shift()` and `pop()` methods differ?

- A. The `shift()` method removes the last item in the array, whereas the `pop()` method removes the first item.
- B. The `pop()` method returns the element it removes, whereas the `shift()` method does not.
- C. The `shift()` method adds the last item in the array at the first position and rearranges the array, whereas the `pop()` method just removes the last item.
- D. The `shift()` method removes and returns the first item in the array, whereas the `pop()` method removes and returns the last item in the array.

Antwoordtoets: D

### Feedback:

The **`shift()`** method works at the first element in the array. It removes and returns the first element in the array and then shifts the contents (index) of the array accordingly. The **`pop()`** method works on the last element in the array. It removes the last element from the array and returns it to the calling statement. (Bron: <https://www.ciwcertified.com/>.)

#### Vraag 5 van 34

Why does the **Array.sort()** method produce unreliable results when elements of an array are numbers?

- A. Because the sort() method can only sort numbers.
- B. Because the sort() method treats numbers as strings and sorts them accordingly.
- C. Because the arrays store numbers as string values, and the sort() method accesses these strings.
- D. Because the sort() method can only sort string values.

Antwoordtoets: B

#### Feedback:

The **Array.sort()** method treats number values as strings and sorts them as if they were strings. It's because of this behavior that the result produced by the **sort()** method, while sorting numbers, is unreliable. For example, **[10, 1, 20, 5].sort()** returns **[1, 10, 20, 5]**. (Bron: <https://www.ciwcertified.com/>)

#### Vraag 6 van 34

How can you extract the username portion of the email address given in the following line of code?

```
var email = joseph@somehwere.something.com
```

- A. email.substring(0, email.indexOf("@"));
- B. email.substring(1, email.indexOf("@") + 1);
- C. email.substring(1, email.indexOf("@"));
- D. email.substring(0, email.indexOf("@") - 1);

Antwoordtoets: A

#### Feedback:

The correct code is **email.substring(0, email.indexOf("@"))**; The **substring()** method will grab the characters starting with the first one (in index position 0) up to the character before the @ sign, which is located using the **indexOf()** property. The **substring()** method extracts the string up to the index position of the second parameter i.e. @, not including that character. (Bron: <https://www.ciwcertified.com/>)

### Vraag 7 van 34

What will be the output of the following expression?

```
"Every black hole has an event  
horizon.".substring("True?".indexOf("e"),25);
```

- A. "ry black hole has an even"
- B. "ery black hole has an eve"
- C. "ry black hole has an e"
- D. "ery black hole has an"

Antwoordtoets: C

### Feedback:

The **substring()** method returns a substring from the starting to the ending index position. The **indexOf()** method returns the index of the first occurrence of a character in a string. In the given string, **"True?".indexOf("e")**, indexing starts at **0**, which is explained as follows:

**Index [0]: T**

**Index [1]: r**

**Index [2]: u**

**Index [3]: e**

**Index [4]: ?**

So, the result of **"True?".indexOf("e")** is **3**. (Here, **"True?"** is considered as a string and not a boolean value.) The **substring()** method now returns a substring of **"Every black hole has an event horizon."** from index 3 to 25, which will give the output as: **ry black hole has an e**. (Bron: <https://www.ciwcertified.com/>.)

### Vraag 8 van 34

Which code snippet can be used to display the current date?

- A. 

```
var myDate = Date();  
alert(myDate);
```
- B. 

```
var myDate = new Date();  
alert(myDate);
```
- C. 

```
var myDate = new date();  
alert(myDate);
```
- D. 

```
var myDate = new date(today);  
alert(myDate);
```

Antwoordtoets: B

### Feedback:

You can use date and time information in JavaScript through the **Date** object. To use any date or time information, you must create a new instance or copy of the **Date** object using the **new** keyword. Considering this, the following code snippet is used to display the current date:

```
var myDate = new Date();  
alert(myDate);
```

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

### Vraag 9 van 34

Consider the following code:

```
var nurseryRhyme = "Mary had a little lamb";
```

How would you find the position of the last letter "a" in the given code?

- A. nurseryRhyme.indexOf("a");
- B. indexOf(nurseryRhyme, "a");
- C. nurseryRhyme.lastIndexOf("a");
- D. charAt(nurseryRhyme, "a");

Antwoordtoets: C

### Feedback:

The correct code and syntax is:

```
nurseryRhyme.lastIndexOf("a");
```

The **lastIndexOf** method will return the last letter "a" in the string.

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

### Vraag 10 van 34

When you need to run a function after a certain amount of time, which method would you use?

- A. setTimeout(function, time);
- B. function.repeat(time);
- C. function.setTimeout(time);
- D. repeat(function, time);

Antwoordtoets: A

### Feedback:

The correct statement is **setTimeout(function, time);**. To have a method or command repeat after a set amount of time, you use the **setTimeout()** method. It passes the parameters for the function to run and the time to wait before running it. (Bron: <https://www.ciwcertified.com/>)

### Vraag 11 van 34

What will be the output of the following expression?

```
var lamp = new Array("Linux", "Apache", "MySQL", "PHP");  
    var lampAbbr = lamp.join();  
    document.write(lampAbbr);
```

- A. LinuxApacheMySQLPHP
- B. Linux Apache MySQL PHP
- C. Linux|Apache|MySQL|PHP
- D. Linux,Apache,MySQL,PHP

Antwoordtoets: D

### Feedback:

The **join()** method joins the elements in an array. By default, it uses , (comma) as the separator, hence the output is **Linux,Apache,MySQL,PHP**. (Bron: <https://www.ciwcertified.com/>)

### Vraag 12 van 34

Which of the following methods returns an array with the results of a function called for each element in an array?

- A. call()
- B. join()
- C. alert()
- D. map()

Antwoordtoets: D

### Feedback:

The **map()** method returns an array with the results of a function called for each element in an array. (Bron: <https://www.ciwcertified.com/>)

### Vraag 13 van 34

An interface that you are developing will display an array in a list format. You want to allow the user to flip the list, making the first item last and the last item first, and reversing the order of all items. Which line of code will help you to achieve the task?

- A. `arrayList.reverse();`
- B. `arrayList.flip();`
- C. `arrayList = reverse(arrayList);`
- D. `arrayList = flip(arrayList);`

Antwoordtoets: A

### Feedback:

The correct statement is **`arrayList.reverse();`**. Arrays have a method that can be applied to them to flip or reverse the order. The **`reverse()`** method does not take any parameters. It will change the array so that the first entry is now last, the second entry is second to last, the last entry is first, and so forth. (Bron: <https://www.ciwcertified.com/>.)

### Vraag 14 van 34

Which statement will reorder and display the array `myArray` in alphabetical order?

- A. `myArray.sort();`
- B. `myArray.alphabetize();`
- C. `myArray = sort(myArray);`
- D. `myArray = alphabetize(myArray);`

Antwoordtoets: A

### Feedback:

The correct statement is **`myArray.sort();`**. When used without a function, the **`sort()`** method converts the elements of the array to strings and performs an alphabetical sort of the values. (Bron: <https://www.ciwcertified.com/>.)

### Vraag 15 van 34

Why is it better to use regular expressions than specific strings for matching?

- A. Because regular expressions are easy to read for developers.
- B. Because regular expressions can match a large number of strings.
- C. Because regular expressions can be debugged easily for logic errors.
- D. Because regular expressions are a lot faster to process than regular strings.

Antwoordtoets: B

### Feedback:

A single regular expression can match a large number of strings, depending on its composition and rules. Since regular expressions use symbolic language for string matching, they are not easy to read by developers. Also, debugging a regular expression, which is large in size, can be a complicated task. However, the level of complexity can be reduced through some tools available online. (Bron: <https://www.ciwcertified.com/>)

### Vraag 16 van 34

What will be the output of the following expression: "Hi there!".split("e")?

- A. ["Hi th", "er", "e!"]
- B. ["Hi the", "re", "!"]
- C. ["Hi th", "r", "!"]
- D. ["Hi th", "e", "r", "e", "!"]

Antwoordtoets: C

### Feedback:

The **split()** method splits a string using the specified character or regular expression and returns an array of substrings. Here's the syntax of the **split()** method:

```
string.split(split_character, number_of_splits);
```

where, **split\_character** specifies the character over which the string is split and **number\_of\_splits** specifies the number of items (after the split) to be included in the returned array.

In the given expression, the **split\_character** is **e**, so the expression will get split where the character **e** occurs. Since, the given expression contains two e's, therefore, the **number\_of\_splits** that takes place will be twice. So, the output will be ["Hi th", "r", "!"].

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

### Vraag 17 van 34

You need a three-element array containing the values Larry, Moe, and Curly. Which statement will create this array?

- A. var Stooges = ["Larry", "Moe", "Curly"];
- B. var Stooges = ("Larry", "Moe", "Curly");
- C. var Stooges[] = new Array[3]("Larry", "Moe", "Curly");
- D. var Stooges[] = ["Larry", "Moe", "Curly"];

Antwoordtoets: A



### Feedback:

The statement that will create the Stooges array is given below:

```
var Stooges = ["Larry", "Moe", "Curly"];
```

The variable **Stooges** which is declared does not have brackets at the end. To properly set up the array, the elements are enclosed in brackets, not parentheses. The size of the array is dynamically adjusted to have as many elements as the highest subscript used. (Bron: <https://www.ciwcertified.com/>)

### Vraag 18 van 34

What will be the result of the following expression?

```
Math.random() * Math.pow(2, 2);
```

- A. 4
- B. Any value between 0 and 4, including 0 excluding 4
- C. Any value between 0 and 4, including 0 and 4
- D. ReferenceError

Antwoordtoets: B

### Feedback:

The **Math.random()** method returns any value in the range 0 to 1, inclusive of 0 and exclusive of 1. The **Math.pow()** method returns the value of 2 squared, which is 4. Combining the results of both the **random()** and **pow()** methods with the multiplication operator (**\***) will return a value between 0 and 4, exclusive of 4. (Bron: <https://www.ciwcertified.com/>)

### Vraag 19 van 34

Consider the following code block:

```
var newDate = new Date();  
    var example = newDate.getDate();  
    alert(example);
```

If the current system date and time is Fri Dec 01 2017 15:18:50, what will be the output of the code block?

- A. Dec 01 2017
- B. Fri Dec 01 2017
- C. Dec 01
- D. 1

Antwoordtoets: D

**Feedback:**

The `getDate()` method returns the day number from the current date value, which is 1 in this case. (Bron: <https://www.ciwcertified.com/>.)

**Vraag 20 van 34**

What is the purpose of the prototype property of the String objects?

- A. It is used to create your own methods and properties of the String object.
- B. It is used when designing a new program to represent strings.
- C. It is used in testing to ensure that the correct value is stored in the String object.
- D. It creates a new string object that has no content.

Antwoordtoets: A

**Feedback:**

Every JavaScript object has the prototype property by which custom methods and properties can be added to any object. (Bron: <https://www.ciwcertified.com/>.)

**Vraag 21 van 34**

In JavaScript, the String, Math, Array, Date, and RegExp objects are called .....

- A. language objects.
- B. DOM objects.
- C. containment objects.
- D. HTML form objects.

Antwoordtoets: A

**Feedback:**

In JavaScript, the **String**, **Math**, **Array**, **Date**, and **RegExp** objects are called language objects. They are not part of the JavaScript containment hierarchy or the DOM (Document Object Model), but are nevertheless part of the JavaScript language. (Bron: <https://www.ciwcertified.com/>.)

### Vraag 22 van 34

Consider the following code:

```
<html>
  <head>
    <script language="JavaScript" type="text/javascript">
      function formatMessage() {
        return "The message of the day is: " +
this.toString();
      }
      String.prototype.message = formatMessage;
    </script>
  </head>
  <body>
    <script language="JavaScript" type="text/javascript">
      document.write("Have a great day".message());
    </script>
  </body>
</html>
```

What text will this code display?

- A. The message of the day is: Have a great day.
- B. Have a great day.
- C. The message of the day is:
- D. "Have a great day".message().

Antwoordtoets: A

#### Feedback:

The code will display the following text: **The message of the day is: Have a great day.** The function **formatMessage** is called with the text **"Have a great day"** which is appended to the text **"The message of the day is: "**. (Bron: <https://www.ciwcertified.com/>.)

### Vraag 23 van 34

Which of the following will determine how many characters are in the variable string str?

- A. str.length;
- B. str.length();
- C. length(str);
- D. str.lengthOf;

Antwoordtoets: A

### Feedback:

The statement **str.length;** will determine how many characters are there in the variable string **str**. (Bron: <https://www.ciwcertified.com/>)

### Vraag 24 van 34

Which of the following characters is used as the escape character in JavaScript?

- A. ?
- B. /
- C. \_
- D. \

Antwoordtoets: D

### Feedback:

The \ (backslash) character is used as the escape character in JavaScript. It converts special characters in the code to string characters, e.g., **\n** is converted to a new line. (Bron: <https://www.ciwcertified.com/>)

### Vraag 25 van 34

Methods like floor(), ceil(), and sin() are associated with which object?

- A. Math
- B. String
- C. Number
- D. Language

Antwoordtoets: A

### Feedback:

All the mathematical methods **floor()**, **ceil()**, and **sin()** are associated with the **Math** object. Several other mathematical methods such as **min()**, **max()**, **log()**, and so on are also associated with this object. (Bron: <https://www.ciwcertified.com/>)

#### Vraag 26 van 34

Which of the following escape sequences will print the backslash character?

- A. \b
- B. \\
- C. \s
- D. ^

Antwoordtoets: B

#### Feedback:

The \ (backslash) symbol is interpreted as the escape character in a JavaScript string. To display the \ symbol itself, the escape sequence \\ is used. The special character \b displays a backspace. (Bron: <https://www.ciwcertified.com/>)

#### Vraag 27 van 34

Which of the following statements is true of the substr() method?

- A. It takes the starting index and the number of characters to extract.
- B. It is a shorthand for the substring() method.
- C. It takes only one parameter, the index after which the string is clipped.
- D. It takes two parameters, the starting and the ending index of the string to clip.

Antwoordtoets: A

#### Feedback:

The **substr()** method takes two parameters, the starting index and the number of characters to extract. It is not shorthand to the **substring()** method, the **substr()** and **substring()** methods function differently. (Bron: <https://www.ciwcertified.com/>)

#### Vraag 28 van 34

Which of the following characters matches the start of a line in a regular expression?

- A. ^
- B. \$
- C. \*
- D. ?

Antwoordtoets: A

### Feedback:

The ^ (carat) character matches the start of a line (or input). The \$ (dollar) character matches the end of input. The \* (asterisk) character matches the preceding expression 0 or more times, and the ? (question) character matches the preceding expression 0 or 1 time. (Bron: <https://www.ciwcertified.com/>)

### Vraag 29 van 34

Consider the following code block:

```
var arr = new Array("Adam", "Bee", "Cathy");
arr.reverse();
arr = new Array(arr.join(""));
arr.sort();
document.write(arr);
```

What will be the output of this code block?

- A. Adam,Bee,Cathy
- B. AdamCathyBee
- C. CathyBeeAdam
- D. aaABCdeehmt

Antwoordtoets: C

### Feedback:

The **arr.reverse()**; expression reverses the order of elements in the **arr** array, and stores the result in the same array. After this operation, the value of the **arr** array becomes **Cathy,Bee,Adam**. The statement **arr = new Array(arr.join(""))**; joins the elements of the array and returns a string **CathyBeeAdam**. At this point, the value of the **arr** array is **["CathyBeeAdam"]**. The **arr.sort()**; method will not have any effect on the **arr** array, because the array has only one element. So the output is, **CathyBeeAdam**. (Bron: <https://www.ciwcertified.com/>)

### Vraag 30 van 34

Which of the following is true of the String.slice() method?

- A. Breaks a string and returns each individual part.
- B. Breaks a string and replaces the substring with the specified string.
- C. Extract a section of the string.
- D. Returns the index position from where the string is sliced.

Antwoordtoets: C

### Feedback:

The **String.slice()** method is used to extract a section of the string. It uses the start and end parameters of the string that need to be extracted. (Bron: <https://www.ciwcertified.com/>.)

### Vraag 31 van 34

Consider the following code:

```
var firstArray = ["Sabrina", "Kelly", "Jill"]
var x = firstArray.pop();
alert(x);
```

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

- A. Jill
- B. Sabrina
- C. Sabrina, Kelly,
- D. SabrinaKellyJill

Antwoordtoets: A

### Feedback:

In the given code, the **pop()** method in the code removes the last element from the **firstArray** array, i.e., **Jill**, and stores it in the **x** variable. Therefore, the alert box will display the value of the variable **x**, which results the output as **Jill**. (Bron: <https://www.ciwcertified.com/>.)

### Vraag 32 van 34

Consider the following code:

```
var firstArray = ["Sabrina", "Kelly", "Jill"];
var secondArray = firstArray;
secondArray = secondArray.join("Kris");
alert(secondArray);
```

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

- A. KrisKellyJill
- B. Kris, Sabrina, Kelly, Jill
- C. Sabrina, Kelly, JillKris
- D. SabrinaKrisKellyKrisJill

Antwoordtoets: D

### Feedback:

The alert box will display **SabrinaKrisKellyKrisJill**. The **join** method will add all of the elements in the array into a string using a parameter as the separator. Because **Kris** was the parameter, **Kris** was used instead of a comma, which is the default. (Bron: <https://www.ciwcertified.com/>.)

### Vraag 33 van 34

Which regular expression pattern will match a number in the form 123-45-6789?

- A. `\d{3}-\d{2}-\d{4}/`
- B. `\d(3)\d(2)\d(4)/`
- C. `\n(3)-\n(2)-\n(4)/`
- D. `\n{3}\n{2}\n{4}/`

Antwoordtoets: A

### Feedback:

The correct regular expression pattern is: **`\d{3}-\d{2}-\d{4}/`**. This expression uses the correct syntax of **`\d`** to match a digit, the number digits to match in brackets, and the two hyphens. (Bron: <https://www.ciwcertified.com/>.)

### Vraag 34 van 34

Consider the following code:

```
var nurseryRhyme = "Mary had a little lamb";
```

How would you find the letter at the seventh position of the given string?

- A. `nurseryRhyme.charAt(6);`
- B. `characterAt(nurseryRhyme, 6);`
- C. `nurseryRhyme.characterAt(7);`
- D. `charAt(nurseryRhyme, 7);`

Antwoordtoets: A

### Feedback:

You can find the letter at the seventh position of the given string using the **`charAt()`** method. The **`charAt()`** method will find the character at the specified position. For the given code, the correct syntax is **`nurseryRhyme.charAt(6);`**. You can count position beginning with 0, not 1. (Bron: <https://www.ciwcertified.com/>.)