

Tableaux et Boucles

(JavaScript)

```
var beatles = [];
```

```
var beatles = [];
beatles.length;
// => 0
```

```
var beatles = [];
beatles.push("John");
```

John

```
var beatles = [];
beatles.push("John");
```

```
beatles[0];
// => "John"
```

John

```
var beatles = ["John"];
beatles.push("Paul");
beatles.push("Ringo");
```

John	Paul	Ringo		
			<u> </u>	

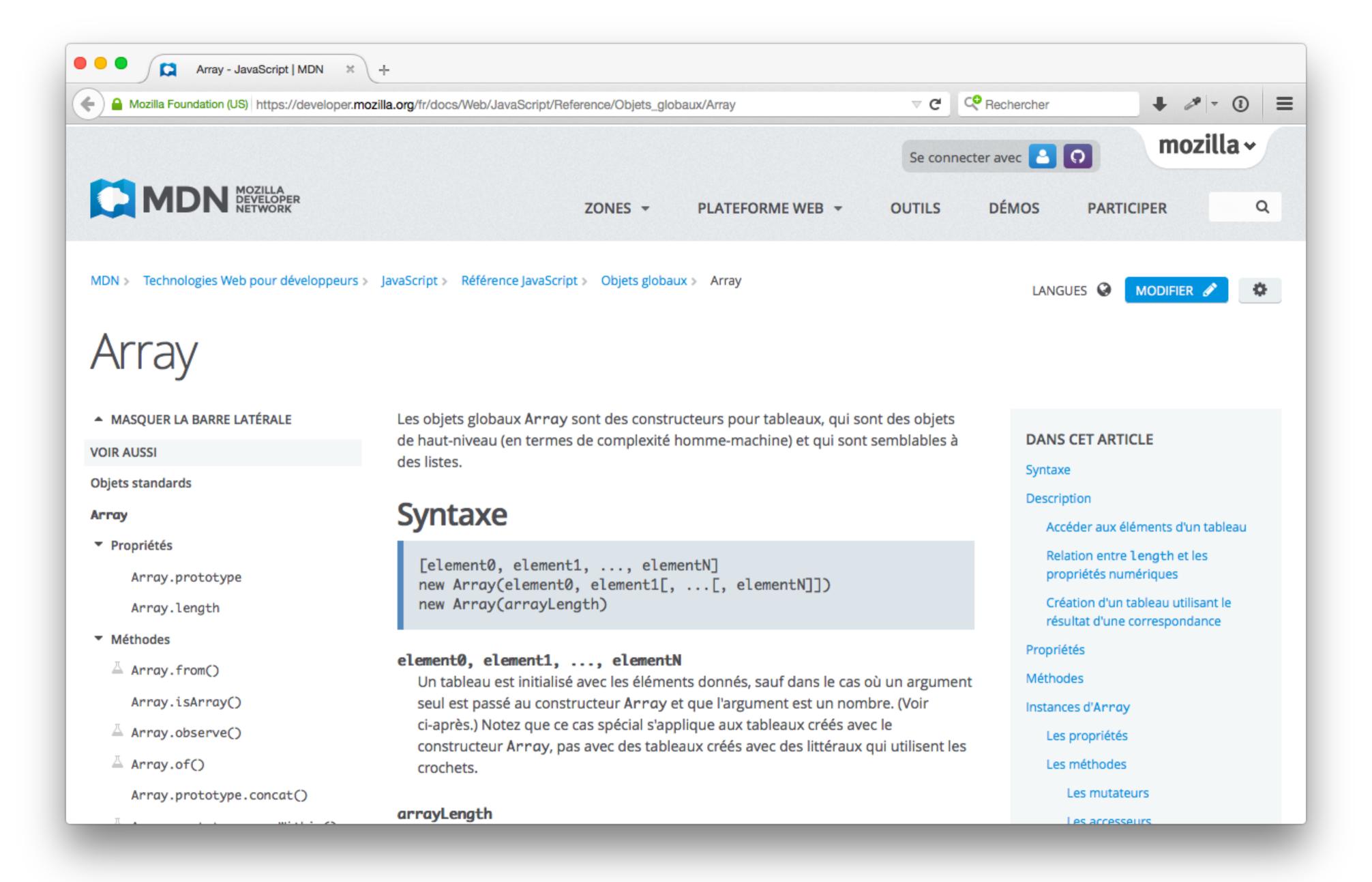
```
var beatles = ["John"];
beatles.push("Paul");
beatles.push("Ringo");
```

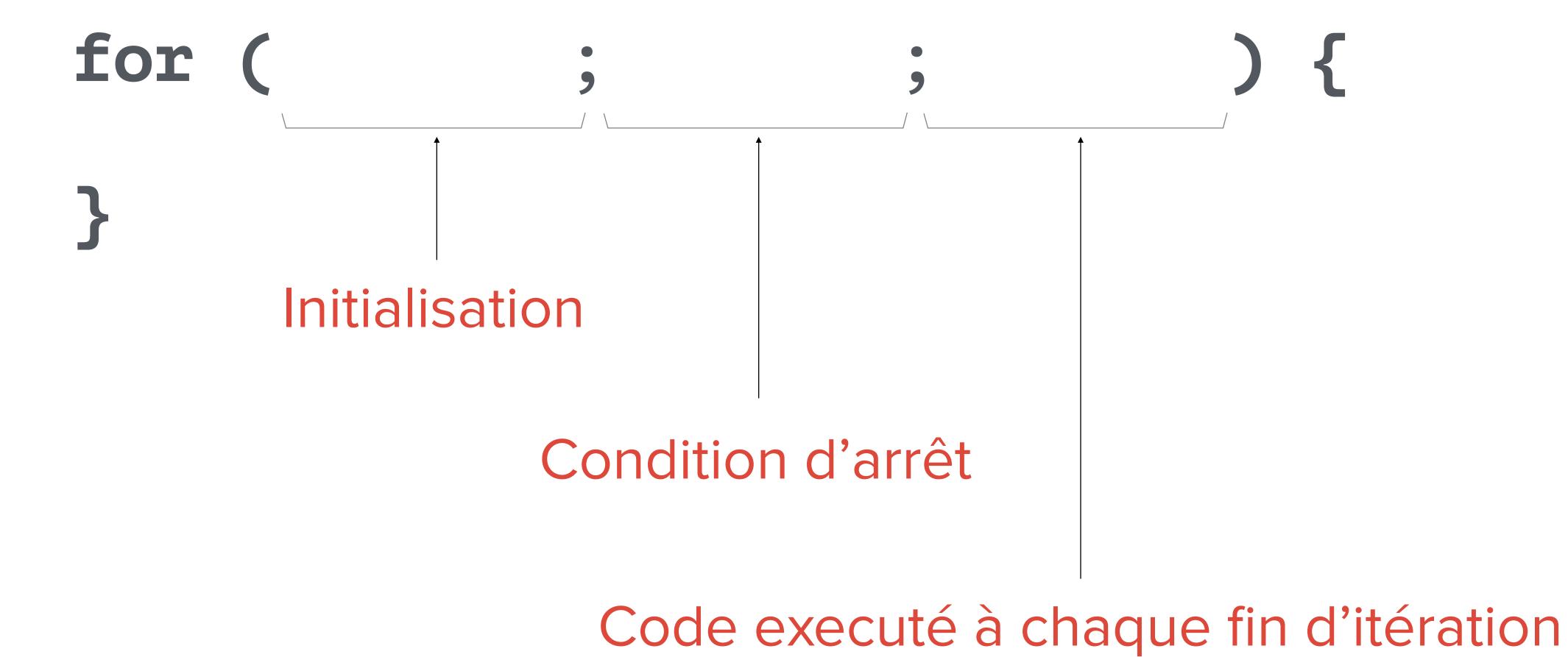
```
beatles[beatles.length - 1];
// => "Ringo"
```

0

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var grades = [12, 18, 15, 9, 13];

12	18	15	9	13

```
var grades = [12, 18, 15, 9, 13];

var sum = 0;
for (var i = 0; i < grades.length; i++) {
   sum = sum + grades[i];
}</pre>
```

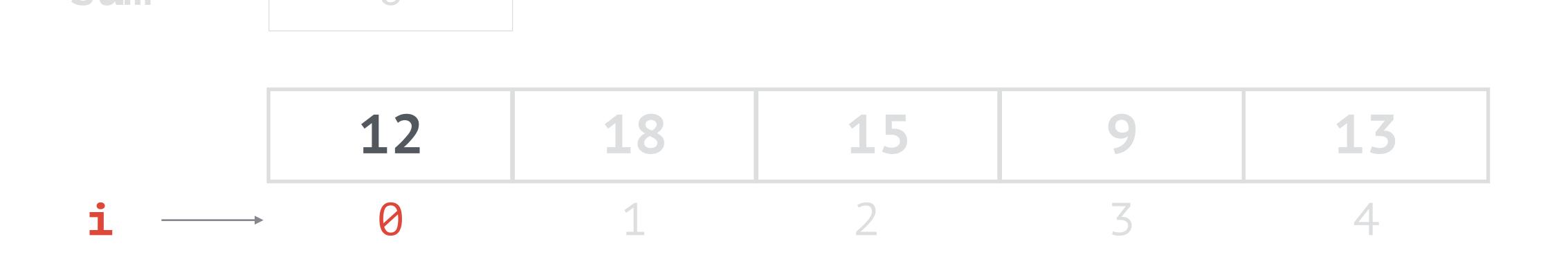


12	18	15	9	13
0	1	2	3	4

```
var grades = [12, 18, 15, 9, 13];

var sum = 0;
for (var i = 0; i < grades.length; i++) {
   sum = sum + grades[i];
}</pre>
```

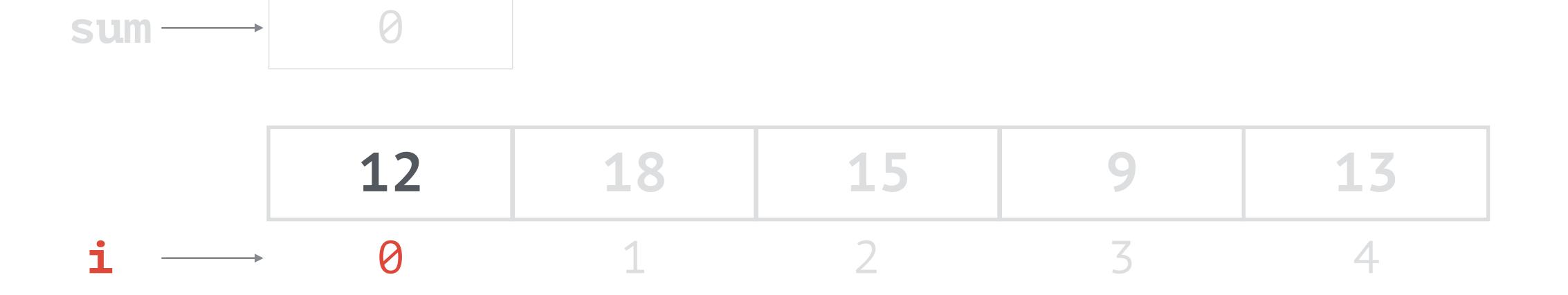
Étape 0 - Initialisation (une seule fois)



```
var grades = [12, 18, 15, 9, 13];

var sum = 0;
for (var i = 0; i < grades.length; i++) {
   sum = sum + grades[i];
}</pre>
```

Étape 1 - Test de la condition d'arrêt



```
var grades = [12, 18, 15, 9, 13];

var sum = 0;
for (var i = 0; i < grades.length; i++) {
   sum = sum + grades[i];
}</pre>
```

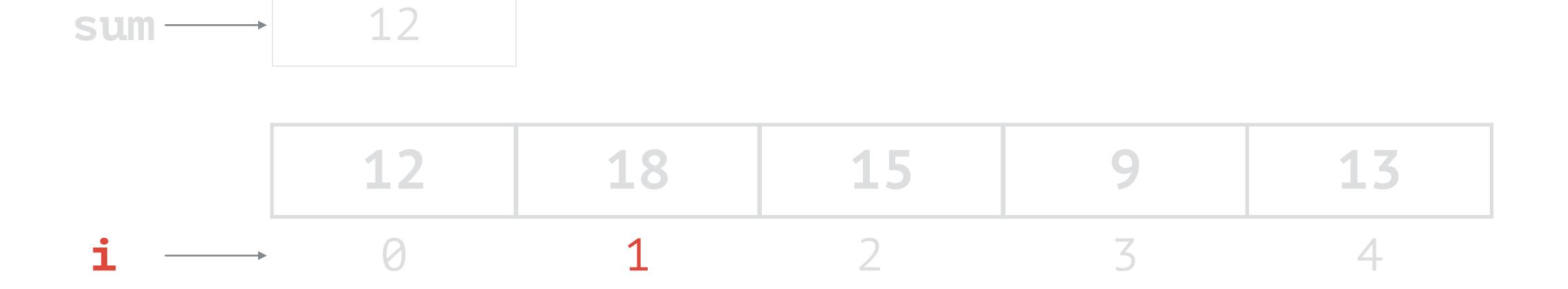
Étape 2 - Exécution du bloc



```
var grades = [12, 18, 15, 9, 13];

var sum = 0;
for (var i = 0; i < grades.length; i++) {
   sum = sum + grades[i];
}</pre>
```

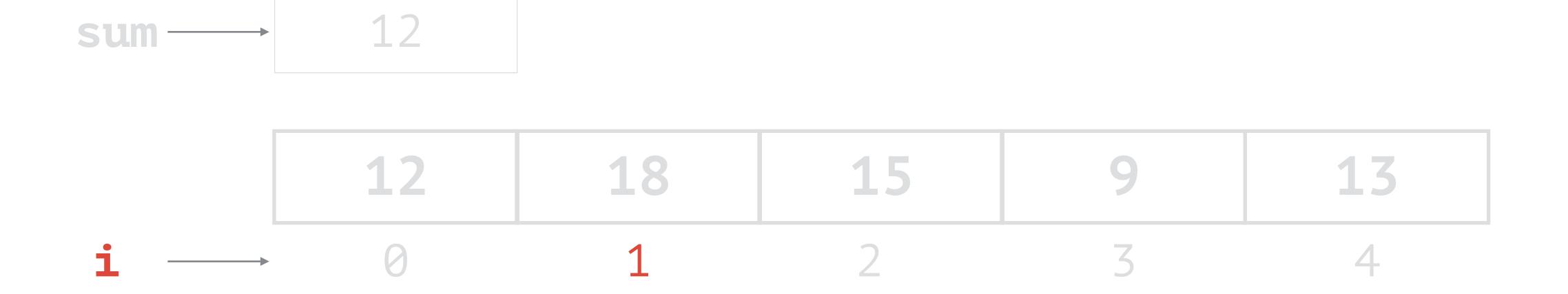
Étape 3 - Exécution du code de fin d'itération



```
var grades = [12, 18, 15, 9, 13];

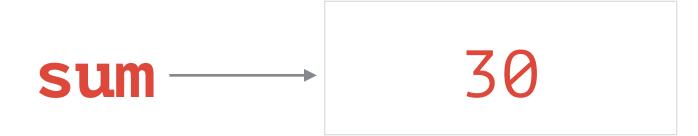
var sum = 0;
for (var i = 0; i < grades.length; i++) {
   sum = sum + grades[i];
}</pre>
```

On recommence à l'étape 1!



```
var grades = [12, 18, 15, 9, 13];

var sum = 0;
for (var i = 0; i < grades.length; i++) {
   sum = sum + grades[i];
}</pre>
```



	12	18	15	9	13
i	0	1	2	3	4

```
var grades = [12, 18, 15, 9, 13];

var sum = 0;
for (var i = 0; i < grades.length; i++) {
   sum = sum + grades[i];
}</pre>
```



	12	18	15	9	13
i	0	1	2	3	4



```
var grades = [12, 18, 15, 9, 13];

var sum = 0;
for (var i = 0; i < grades.length; i++) {
   sum = sum + grades[i];
}</pre>
```



	12	18	15	9	13
<u>i</u>		1	2	3	4

```
var grades = [12, 18, 15, 9, 13];

var sum = 0;
for (var i = 0; i < grades.length; i++) {
   sum = sum + grades[i];
}</pre>
```



	12	18	15	9	13
<u> </u>	0	1	7	3	4

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```
var grades = [12, 18, 15, 9, 13];
var sum = 0;
for (var i = 0; i < grades.length; i++) {</pre>
  sum = sum + grades[i];
                           false
                     La boucle s'arrête!
```



Condition d'arrêt

```
var grades = [12, 18, 15, 9, 13];
var sum = 0;
```

```
var grades = [12, 18, 15, 9, 13];
var sum = 0;
var i = 0;
```

```
var grades = [12, 18, 15, 9, 13];
var sum = 0;
var i = 0;
while (i < grades.length) {
}</pre>
```

```
var grades = [12, 18, 15, 9, 13];
var sum = 0;
var i = 0;
while (i < grades.length) {
   sum = sum + grades[i];
}</pre>
```

```
var grades = [12, 18, 15, 9, 13];
var sum = 0;
var i = 0;
while (i < grades.length) {
   sum = sum + grades[i];
   i++;
}</pre>
```