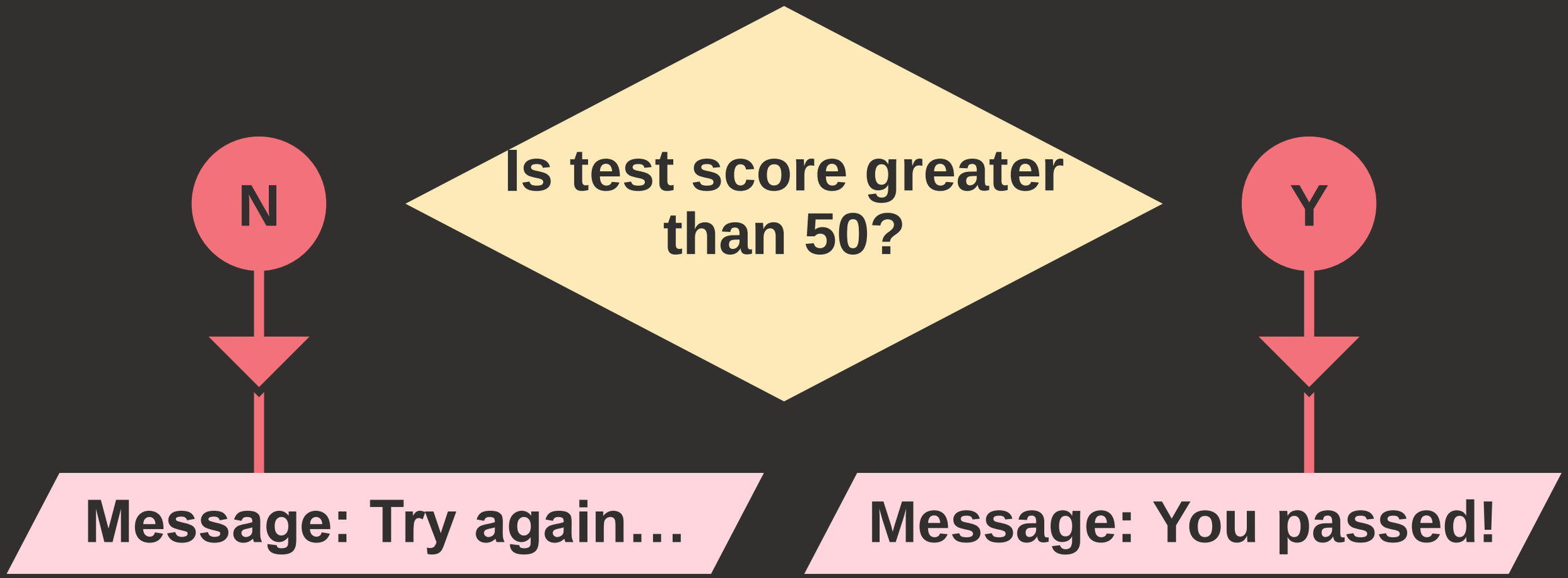
Web Application Development

Decisions and Loops

A script can do different things depending on what values it has been passed.

MAKING DECISIONS


Is test score greater than 50?
N
Y
Message: Try again…
Message: You passed!

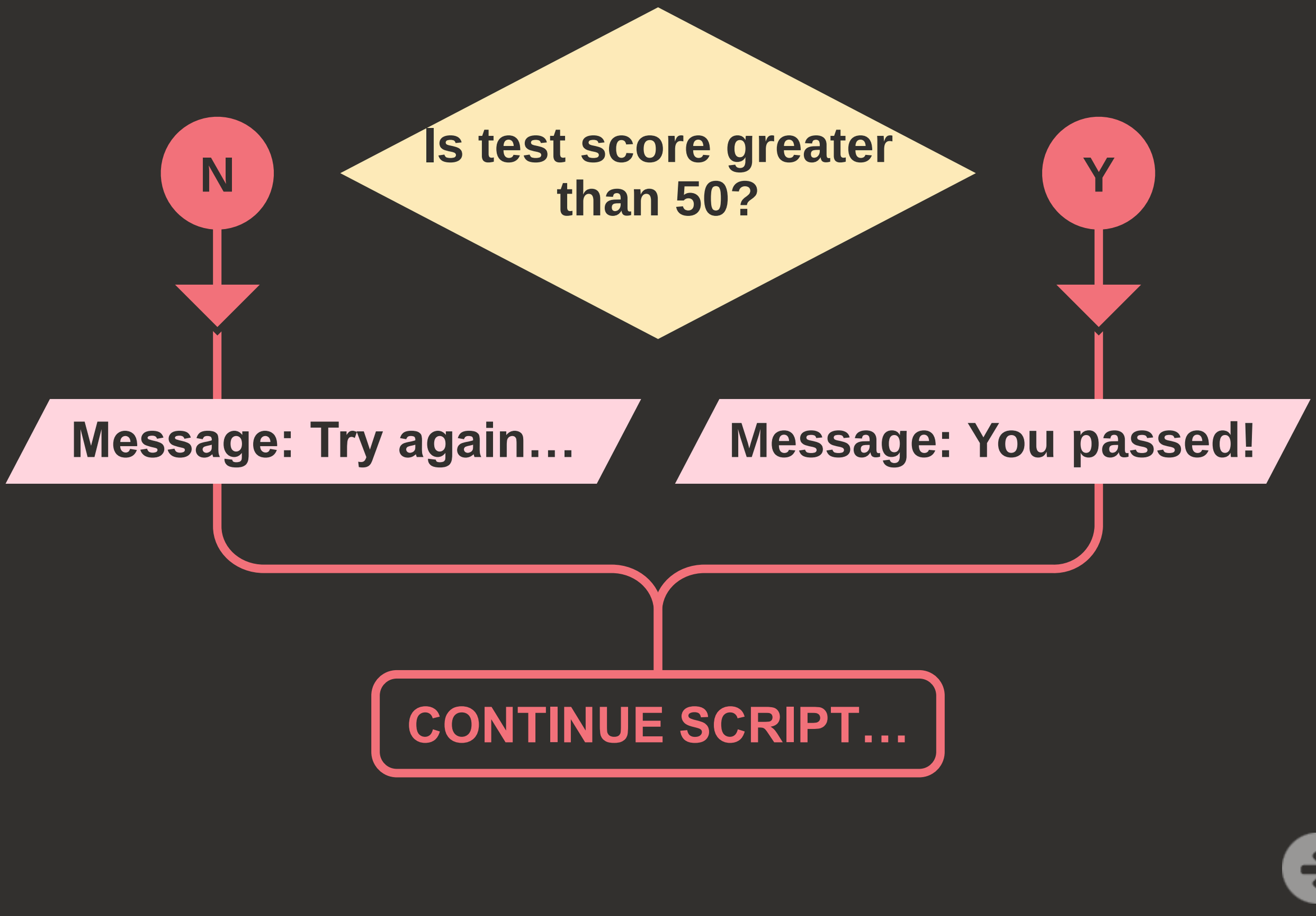
```
if (score > 50)
```

Is test score greater than 50?

```
if (score > 50) {
   document.write('You passed!');
}
```

Is test score greater than 50?
Y
Message: You passed!

```
if (score > 50) {
   document.write('You passed!');
} else {
   document.write('Try again…');
}
```


Is test score greater than 50?
N
Y
Message: Try again…
Message: You passed!
CONTINUE SCRIPT…

COMPARISON OPERATORS

==

IS EQUAL TO

!=

IS NOT EQUAL TO

===

STRICT EQUAL TO

!==

STRICT NOT EQUAL TO

>

GREATER THAN

<

LESS THAN

>=

GREATER THAN
OR EQUAL TO

<=

LESS THAN
OR EQUAL TO

LOGICAL OPERATORS

```
if (score > 75)&&(score < 95) {
   document.write('Very good!');
}
```

&&

||

!

LOGICAL AND

LOGICAL OR

LOGICAL NOT

SWITCH STATEMENTS

```
switch (level) {
  case 'One':
    title = 'Level 1';
    break;
  case 'Two':
    title = 'Level 2';
    break;
  case 'Three':
    title = 'Level 3';
    break;
  default:
    title = 'Test';
    break;
}
```

LOOPS

```
for (var i=0; i<3; i++) {
    document.write(i);
}
```

KEYWORD

```
for (var i=0; i<3; i++) {
    document.write(i);
}
```

CONDITION (COUNTER)

```
for (var i=0; i<3; i++) {
    document.write(i);
}
```

The variable `i` is declared and set a value of 0

INITIALIZATION

```
for (var i=0; i<3; i++) {
    document.write(i);
}
```

Every time the loop is run, the condition is checked to see if `i` is less than 3

CONDITION

```
for (var i=0; i<3; i++) {
    document.write(i);
}
```

If `i` is less than 3, the code block is run

```
for (var i=0; i<3; i++) {
    document.write(i);
}
```

The variable `i` can be used inside the loop
(here it is used to write its value to the page)

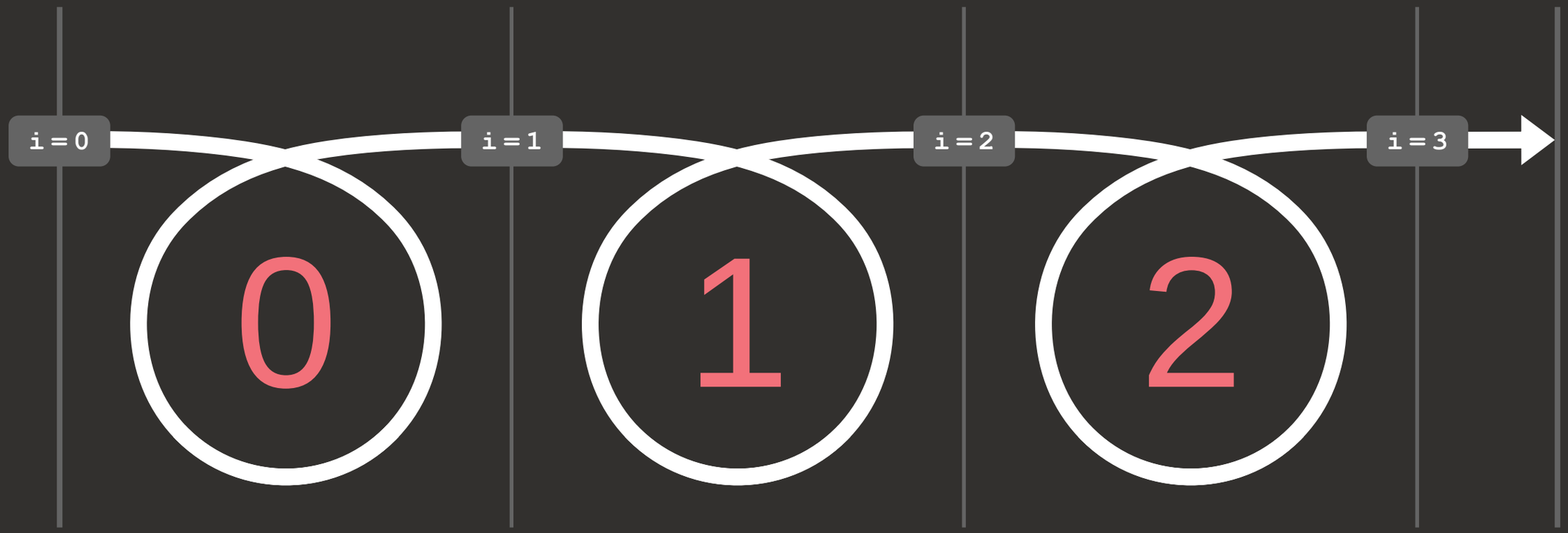
```
for (var i=0; i<3; i++) {
    document.write(i);
}
```

When the code inside the curly braces has been executed, the variable `i` is incremented by 1

UPDATE

```
for (var i=0; i<3; i++) {
    document.write(i);
}
```

ANATOMY OF A LOOP

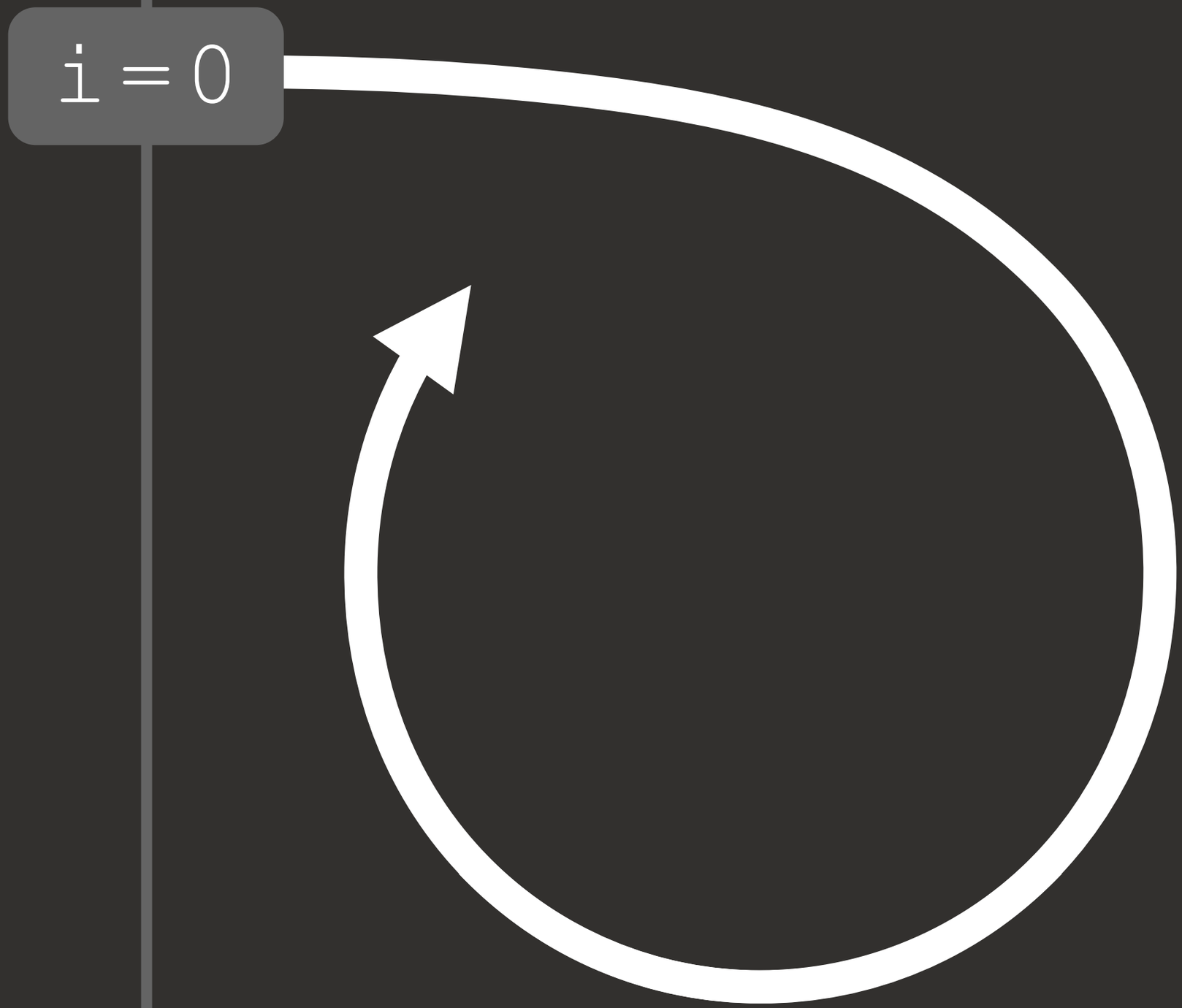

i = 0
i = 1
i = 2
i = 3
0
1
2

$i = 0$

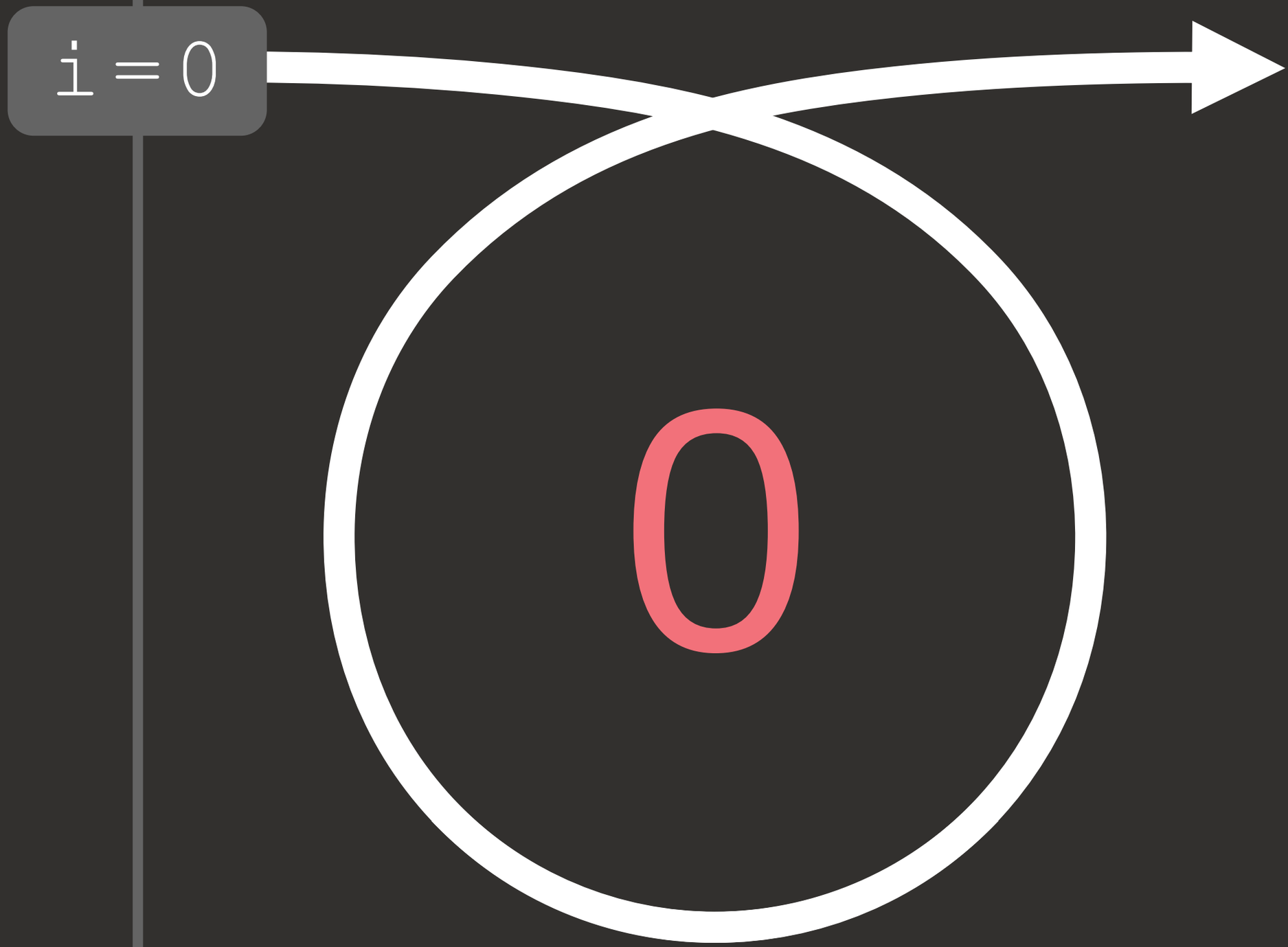
Is `i` less than 3?

`i = 0`

Yes, `i` is less than 3



Write `i` to the page

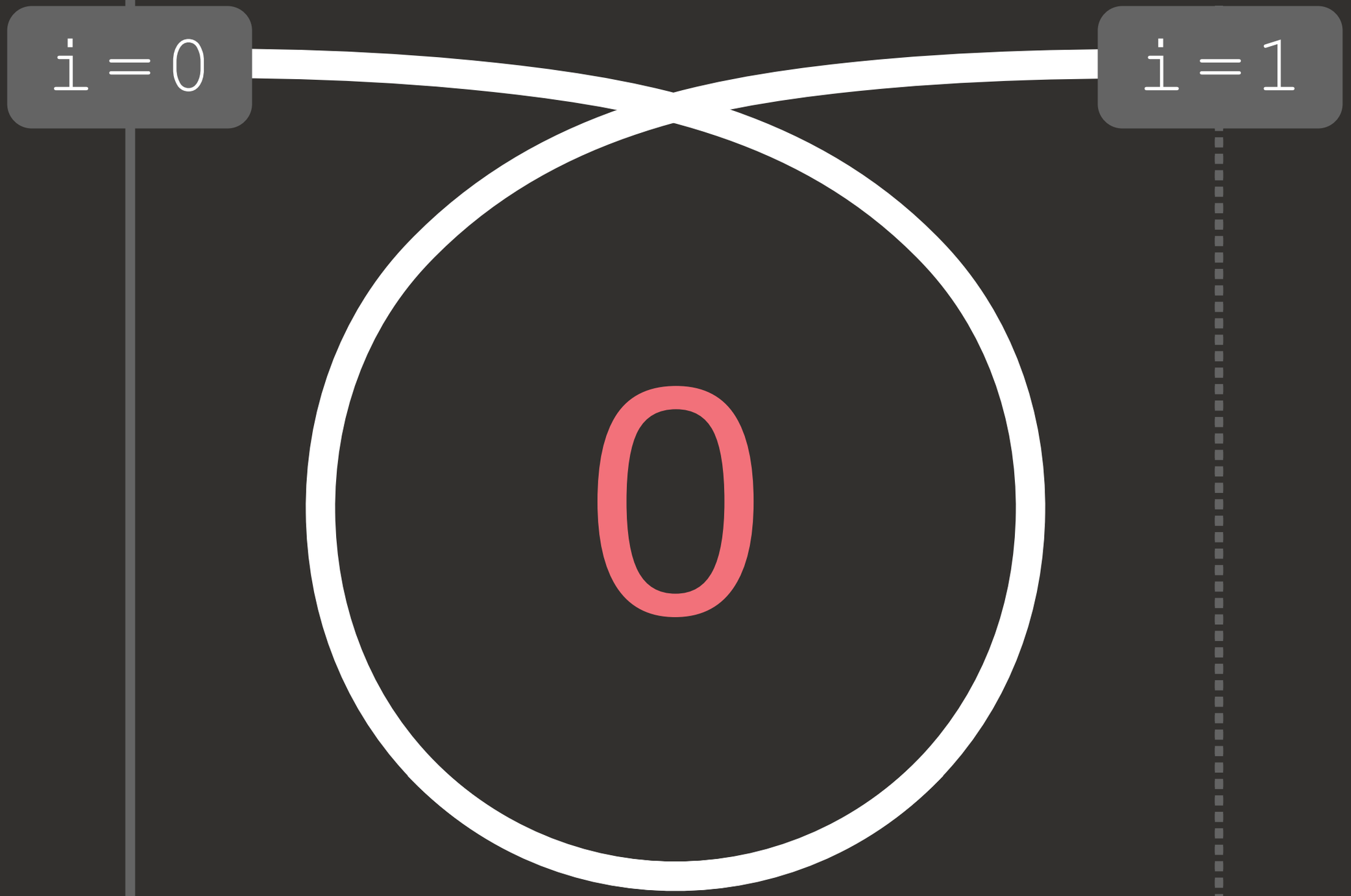


Add 1 to `i`

`i = 0`

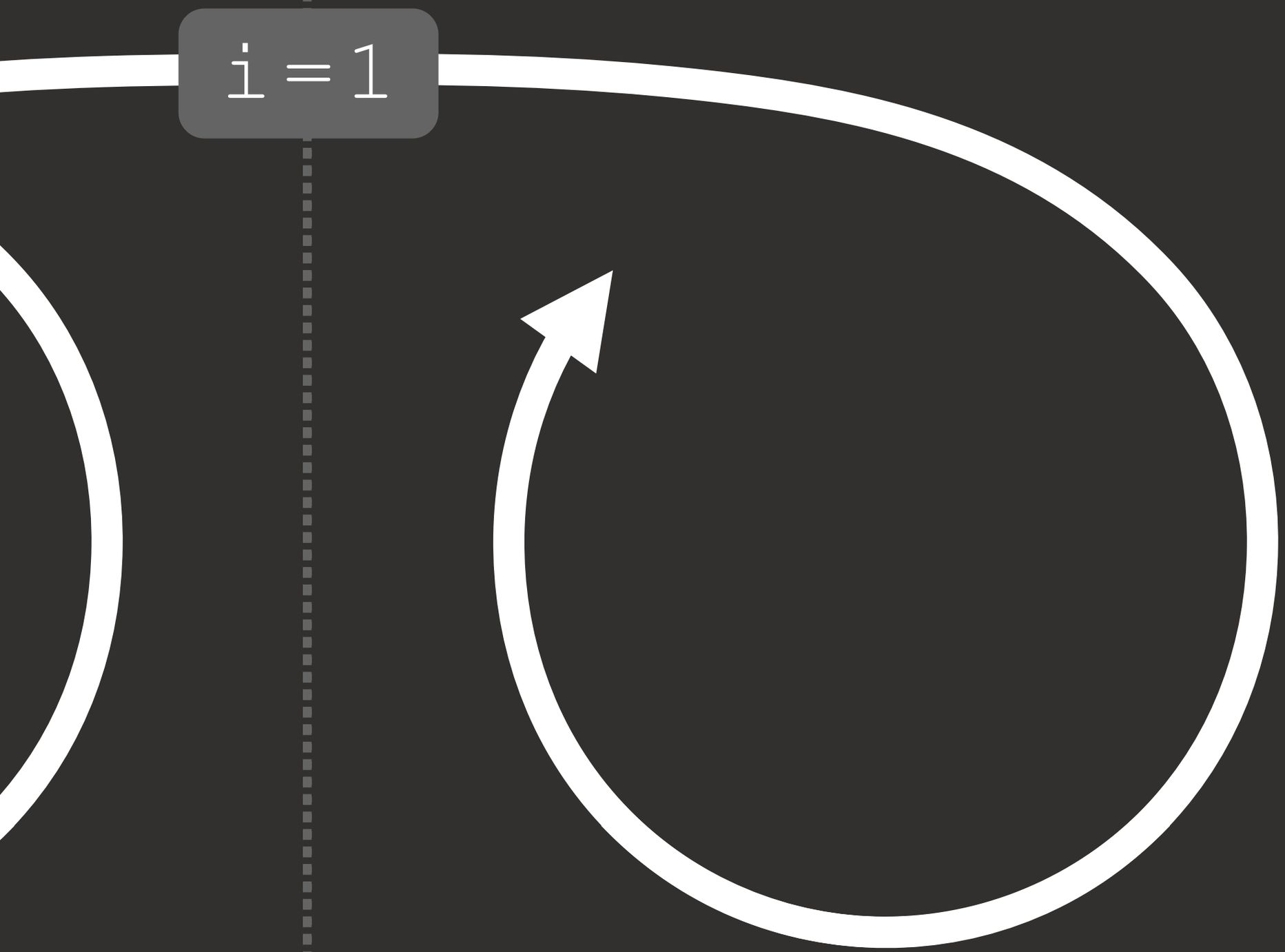
`i = 1`

0


i = 0
i = 1
0

Is `i` less than 3?

Yes, `i` is less than 3



Write `i` to the page

`i = 1`

1

Add 1 to `i`

`i = 1`

`i = 2`

1

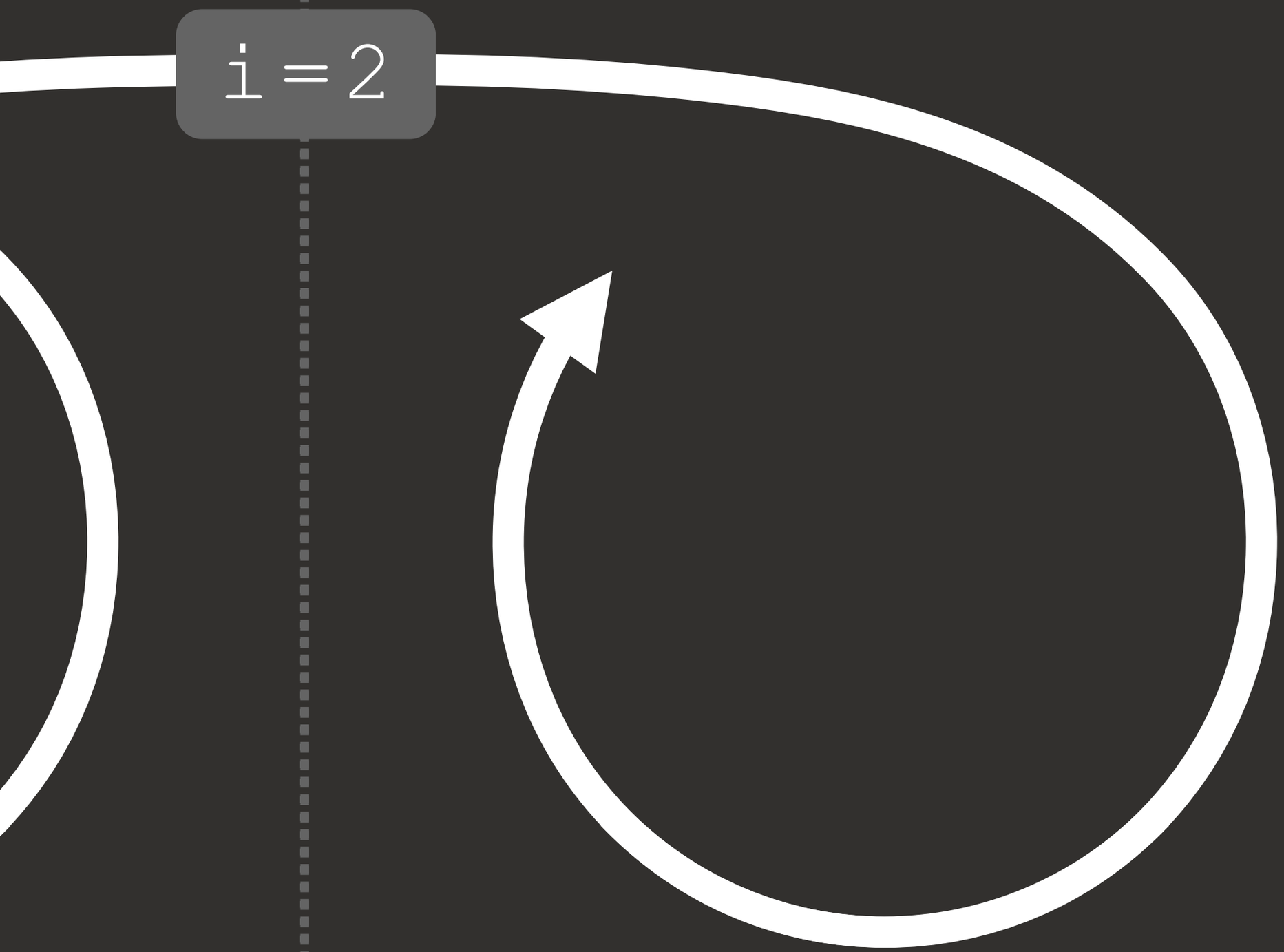
i = 1

i = 2

1

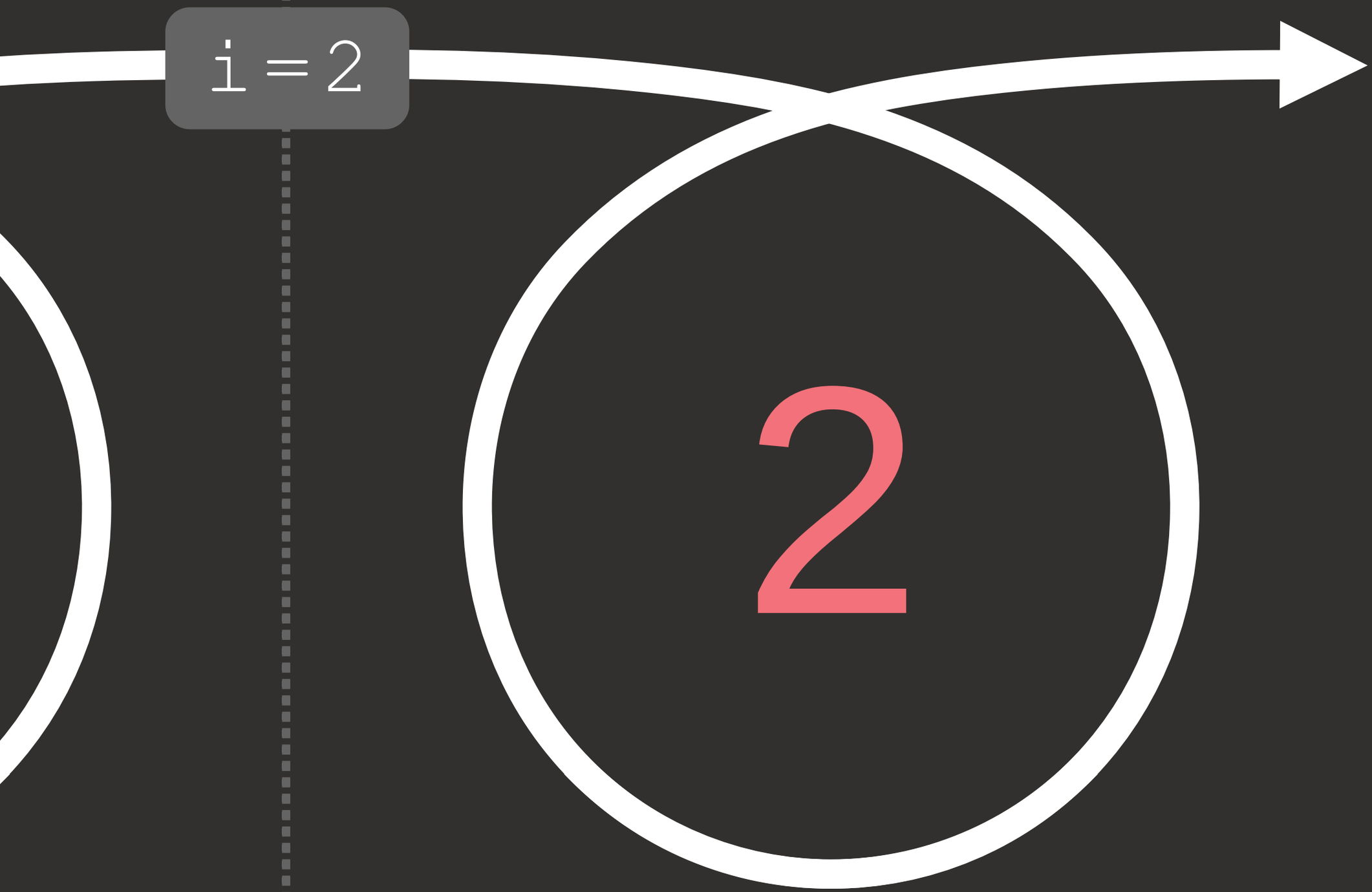
Is `i` less than 3?

Yes, `i` is less than 3



Write `i` to the page

`i = 2`



Add 1 to `i`

`i = 2`

`i = 3`

2

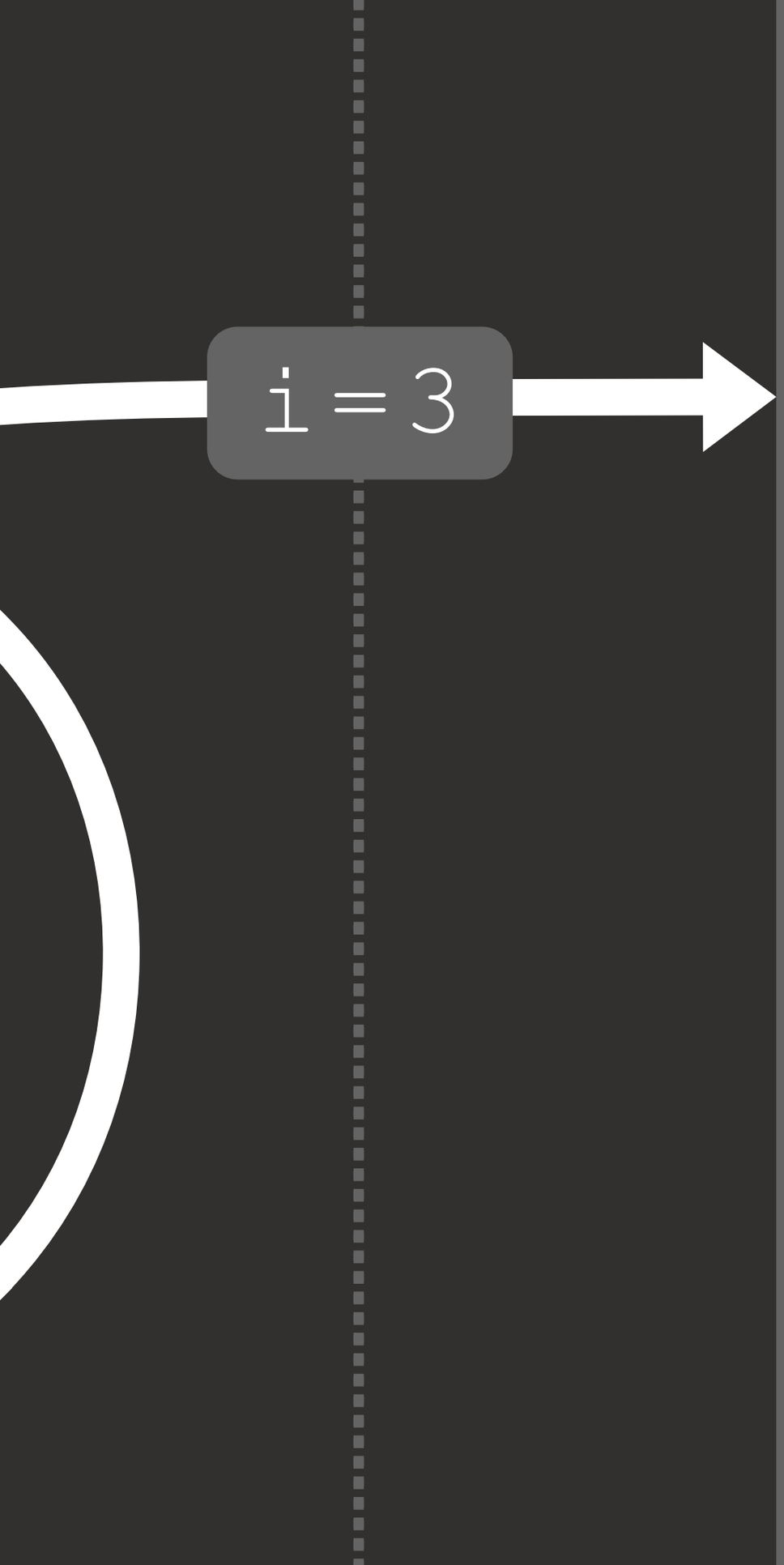
i = 2

i = 3

2

Is `i` less than 3?

No, `i` is not less than 3



End loop