JS 2 - Program structures

DE HOGESCHOOL
MET HET NETWERK

Expression

expression stuk code dat een waarde produceert
expressions kunnen sub-expressions bevatten

```
true
12
12 + 3
12 + 3 * (1 + a)

3 * (2 + Math.sqrt( 1 + Math.sqrt( 64 ) ) )
```

Statement

statement — instructie, opdracht
meestal na statement een puntkomma

```
1;          // zinloze statement
            // produceer de waarde 1
            // er gebeurt verder niets

let a = 12 + 3;
            // maak de variabele a aan geef
            // deze waarde 15 (resultaat v.
            // expression 12 + 3)

a = a + 1;
            // verhoog a met 1 (resultaat v.
            // expression a + 1
```

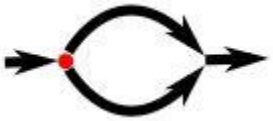
Sequentie

```
let theNumber = Number(prompt("Pick a number"));

console.log("Your number is the square root of " +
       theNumber * theNumber);
```

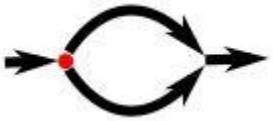
prompt: geeft een string terug
Number(...): omzetting naar number

if



```
let num = Number(prompt("Pick a number"));
if (num < 10) {
    console.log("Small");
} else if (num < 100) {
    console.log("Medium");
} else {
    console.log("Large");
}
```

if



```
let theNumber = Number(prompt("Pick a number"));
if (!Number.isNaN(theNumber)) {
    console.log("Your number is the square root of " +
        theNumber * theNumber);
}
```

```
let theNumber = Number(prompt("Pick a number"));
if (!Number.isNaN(theNumber)) {
    console.log("Your number is the square root of " +
        theNumber * theNumber);
} else {
    console.log("Hey. Why didn't you give me a number?");
}
```

switch

```
let answer = prompt("What is the weather like?");
switch ( answer ) {
    case "rainy":
        console.log("Remember to bring an umbrella.");
        break;
    case "sunny":
        console.log("Dress lightly.");
    case "cloudy":
        console.log("Go outside.");
        break;
    default:
        console.log("Unknown weather type!");
        break;
}
```

while

```
let number = 0;
while (number <= 12) {
    console.log(number);
    number = number + 2;
}
console.log(number);
```

```
let result = 1;
let counter = 0;
while (counter < 10) {
    result = result * 2;
    counter++;
}
console.log(result);        // → 1024
```

do while

```
let yourName;
do {
    yourName = prompt("Who are you?");
} while (!yourName);
console.log(yourName);
```

for

```
for (let number = 0; number <= 12; number += 2) {
    console.log(number);
}


for (let current = 20;      ; current++) {
    if (current % 7 == 0) {
        console.log(current);
        break;
    }
}
```

Besluit

Programma bestaat uit statements

Meestal bevatten statements expressions

Expressions kunnen bestaan uit sub-expressions

Sequentie

Opsplitsing: if-else, switch

Looping: while, do while, for