

# Variables

# Types

- Number (all numbers)
- String (alle text)
- Boolean (true or false)
- Undefined (not yet given a value)

## Declaring Variables

To create a variable use the keywords var, let or const.

```
//moodle uses var, but let is better to use and works the same way in examples
```

```
let pet; //value = undefined
```

# Strings

Strings are text, and when declaring we wrap the value in ' or ".  
All values wrapped in quotation marks will be interpreted as text.

```
let pet = "dog"; //value = "dog"
```

## Adding strings

```
let firstName = "Ola";  
let lastName = "Nordmann";  
let fullName = firstName + lastName; //value = OlaNordman  
let fullNameSeperated = firstName + " " + lastName; //value = Ola Nordman
```

# Numbers

Numbers in JavaScript can be whole numbers or have decimals.

```
let number1 = 10;  
let number2 = 11.1;
```

# Operators

```
let x = 10;  
let y = 30;  
x+y; // 40  
x-y; // -20  
x*y; // 300  
y/x; // 3  
y%x; //0 finds remainder  
5%2; // 1
```

## Strings and numbers

```
let number1 = 10;  
let number2 = "10";  
  
let result = number1+number2 // value?
```



## converting

```
let number1 = 10;  
let number2 = "10";  
let result = number1+Number(number2);
```

Other options are parseInt for integers, and parseFloat for decimals.

# Booleans

Variables with the value of either true or false

```
let x = true;  
let y = false;
```

## Checking types

```
typeof 12;  
typeof "01a";  
typeof x;
```