

# A Different Way of Defining Functions

## Function Declaration / Function Statement

```
function multiply(a, b) {  
  return a * b;  
}
```

Hoisted to top, can be declared anywhere in the file (i.e. also after it's used)

## Function Expression

```
const multiply = function(a, b) {  
  return a * b;  
}
```

Hoisted to top but **not initialized**/ defined, **can't** be declared anywhere in the file (i.e. not after it's used)

# Arrow Functions

General Syntax: (arg1, arg2) => { ... }

No Arguments /  
Parameters

```
() => { ... }
```

Empty pair of parentheses  
is required

Exactly one (1) Argument /  
Parameter

```
arg => { ... }
```

Parentheses can be  
omitted

Exactly one expression in  
function body

```
(a, b) => a + b
```

Curly braces can be  
omitted, result is returned

More than one expression  
in function body

```
(a, b) => {  
  a *= 2; return a + b;  
}
```

Curly braces and return  
statement required