

Conditionals

UC Berkeley Graduate School of Journalism

Conditionals

IF true ...

```
var score = 5;
```

```
if(score == 10){
```

```
    console.log("You won!!");
```

```
}
```

IF true ...

```
var score = 5;
```

```
if(score == 10){
```

```
    console.log("You won!!");
```

```
}
```

Sets up a conditional

IF true ...

```
var score = 5;
```

```
if(score == 10){
```

```
    console.log("You won!!");
```

```
}
```

The condition.

Result will be either TRUE or FALSE

IF true ...

```
var score = 5;
```

```
if(score == 10){
```

```
    console.log("You won!!");
```

```
}
```

Code will only execute if condition was true.

Operators

Operator	Description
==	Equivalency
!=	Not equal
>	More than
<	Less than
>=	More than or equal to
<=	Less than or equal to

Pop Quiz

```
var score = 5;
```

```
if(score < 10){
```

```
    console.log("You won!!");
```

```
}
```

You won!!

Pop Quiz

```
var score = 10;
```

```
if(score < 10){
```

```
    console.log("You won!!");
```

```
}
```

[nothing]

Pop Quiz

```
var score = 30;
```

```
if(score >= 30){
```

```
    console.log("You won!!");
```

```
}
```

You won!!

Pop Quiz

```
var score = 30;  
var topscore = 50;  
  
if(score > topscore){  
    console.log("High scorer!!");  
}
```

false

Pop Quiz

```
var age = 21;  
var drinkingAge = 21;  
  
if(age < drinkingAge){  
    console.log("can't drink");  
  
}
```

false

Pop Quiz

```
var age = 21;  
var drinkingAge = 21;  
  
if(age >= drinkingAge){  
    console.log("Enjoy!");  
}
```

Enjoy!

Pop Quiz

```
var password = "abcdefg";  
if(password != "rosebud"){  
    console.log("Wrong password");  
}
```

true

Else

```
var score = 5;

if(score == 10){
    console.log("You won!!");
} else {
    console.log("You lost");
}
```

Else

```
var score = 5;  
  
if(score == 10){  
    console.log("You won!!");  
  
} else {  
    console.log("You lost");  
  
}
```

if it's a FALSE statement

Pop Quiz

```
var height = 45;
if(height <= 44){
    console.log("Not tall enough to ride");
} else {
    console.log("Welcome aboard");
}
```

Welcome aboard

Pop Quiz

```
var firstName = "Joe";  
if(firstName == "JOE"){  
    console.log("correct person");  
} else {  
    console.log("Wrong person");  
}
```

Wrong guy

Pop Quiz

```
var person = "Jimmy Smalls";  
if(person == "Jimmy" + " " + "Smalls"){  
    console.log("Hi Jimmy");  
} else {  
    console.log("Wrong person");  
}
```

Hi Jimmy

Pop Quiz

```
var person = "Jack";  
if(person != "Jack Smith"){  
    console.log("Wrong Jack");  
} else {  
    console.log("Hey Jack");  
}
```

Wrong Jack

Pop Quiz

```
var num = 55;

if(num != (16 - 5) * (3 + 2)){

    console.log("Answer A");

} else {

    console.log("Answer B");

}
```

Answer B

else vs no else

```
if(name == "Joe"){  
  console.log("Hi Joe!");  
} else {  
  console.log('Welcome');  
}
```

Hi Joe!

```
if(name == "Joe"){  
  console.log("Hi Joe!");  
}  
  
console.log('Welcome');
```

Hi Joe!
Welcome

Multiple Conditions

```
var fruit1 = "Apple";  
var fruit2 = "Pear";  
  
if(fruit1 == "Apple" && fruit2 == "Pear")  
{  
    console.log("Both are true");  
}  
  
else  
  
{  
    console.log("One or more is false");  
}
```

Multiple Conditions

```
var fruit1 = "Apple";  
var fruit2 = "Pear";  
  
if(fruit1 == "Apple" && fruit2 == "Pear")  
{  
    console.log("Both are true");  
}  
  
else  
  
{  
    console.log("One or more is false");  
}
```


Multiple Conditions

```
var fruit1 = "Apple";  
var fruit2 = "Pear";  
  
if(fruit1 == "Apple" && fruit2 == "Pear")  
{  
    console.log("Both are true");  
}  
  
else  
  
{  
    console.log("One or more is false");  
}
```

Multiple Conditions

Operator	Description
&&	AND
	OR

Multiple Conditions

```
var num = 5;

if(num == 6 || num == 5)
{
    console.log("One or both are true");
}

else

{
    console.log("Both are false");
}
```

Pop Quiz

```
var num = 5;

if(num > 3 || num < 5)
{
    console.log("True");
}
else
{
    console.log("False");
}
```

True

Pop Quiz

```
var num = 5;  
  
if(num > 3 && num < 5)  
{  
    console.log("True");  
}  
else  
{  
    console.log("False");  
}
```

False

Pop Quiz

```
var num = 45;  
  
if(num > 44 && num < 46)  
{  
    console.log("True");  
}  
else  
{  
    console.log("False");  
}
```

True

Pop Quiz

```
var num = 45;  
  
if(num != 45 && num == 45)  
{  
    console.log("True");  
}  
else  
{  
    console.log("False");  
}
```

False

Pop Quiz

```
var num = 45;  
  
if(num !== 3 || num === 45)  
{  
    console.log("True");  
}  
else  
{  
    console.log("False");  
}
```

True

Pop Quiz

```
var pass = "rosebud";  
  
if(pass == "rose" || pass == "bud")  
{  
    console.log("True");  
}  
else  
{  
    console.log("False");  
}
```

False

Pop Quiz

```
var person = {age: 34, height: 60};  
  
if(person.height > 50 || person.age <= 36)  
{  
    console.log("True");  
}  
else  
{  
    console.log("False");  
}
```

True

Pop Quiz

```
var i = [23, 43, 6, 88, 3];
```

```
if(i[0] > 50 || i[2] >= 10)
```

```
{
```

```
    console.log("True");
```

```
}
```

```
else
```

```
{
```

```
    console.log("False");
```

```
}
```

False

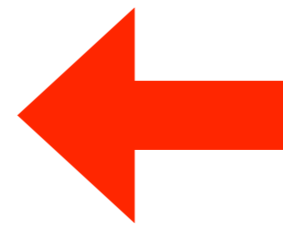
Boolean rules

if ()

Number	0 is false all others true
String	"" is false all others true
Array	Always true
Object	Always true

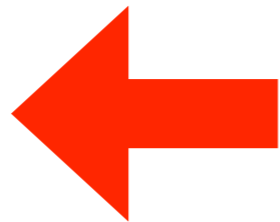
A few caveats

```
var someString = "";
```



This is false

```
var num = 0;
```



So is this

False Exceptions

```
var name = "";  
  
if(name){  
    console.log("true");  
} else {  
    console.log("false");  
}
```

False Exceptions

```
var num = 0;

if(num == "0"){

    console.log("true");

} else {

    console.log("false");

}
```

False Exceptions

```
var num = 0;

if(!num){

    console.log("true");

} else {

    console.log("false");

}
```


Pop Quiz

```
var num = 3 + 4;  
num -= 7;  
  
if(!num){  
    console.log("true");  
} else {  
    console.log("false");  
}
```

true

Pop Quiz

```
var num = 88;  
num -= 90;  
  
if(num + 2){  
    console.log("true");  
} else {  
    console.log("false");  
}
```

false

Pop Quiz

```
var i = [4, 2, 5, 6, 0];
```

```
if(i[0] && i[4] && i[1]){
```

```
    console.log("true");
```

```
} else {
```

```
    console.log("false");
```

```
}
```

true

Pop Quiz

```
var i = [4, 2, 5, 6, 0];
```

```
if((i[0] && i[3]) || (i[1] && i[4])){
```

```
    console.log("true");
```

```
} else {
```

```
    console.log("false");
```

```
}
```

true

Comparison expressions are values

```
var score = 28;
```

```
var name = "John Doe";
```

```
var lucky = false;
```

```
var loser = "heads" == "tails";
```

```
var isTrue = 56 > 2;
```

Comparison expressions are values

`44 + 1`

Number

`"hello" + "world"`

string

`[3, 4, 5, 6]`

Array

`{"name": "Joe", "age": 3}`

Object Literal

`1 == 2`

Boolean

`true`

Also a boolean