JAVASCRIPT: FUNCTIONS

A SIMPLE FUNCTION

```
function babysFirstFunction() {
    console.log('hi everyone!');
    console.log('look at me!');
}
```

CALLING THIS FUNCTION

```
console.log('apple');
babysFirstFunction();
console.log('orange');
```

EXERCISE

- WHAT DOES THE FOLLOWING PRINT OUT?

```
function beep() {
    console.log("apple");
    console.log("orange");
}

console.log("grapefruit");
beep();
console.log("persimmon");
beep();
```

EXERCISE

- WHAT DOES THE FOLLOWING PRINT OUT?

```
function red() {
    console.log("red");
}

function blue() {
    console.log("blue");
}

blue();
red();
console.log("green");
blue();
```

FUNCTION PARAMETERS

```
function kingfisher(obsidian, marble) {
    console.log(obsidian + marble);
    console.log(obsidian * marble);
    console.log(obsidian - marble);
}

kingfisher(6, 2);
kingfisher(10, 20);
```

EXERCISE

- WHAT DOES THE FOLLOWING PRINT OUT?

```
function swordfish(tourmaline, hematite, mithril) {
    console.log(tourmaline + hematite + mithril)
}

swordfish(1, 2, 3);
swordfish(4, 5, 6);
```

EXAMPLE

```
function boop(seagull, bagel) {
    console.log(seagull);
    console.log(bagel);
    console.log(seagull + bagel);
}

boop(1, 2);
boop(50, 30);
```

EXAMPLE 2

```
function bop(prince, princess) {
    console.log(prince - princess)
}

var peanut = 10;
var butter = 15;

bop(peanut, butter);
bop(butter, peanut);
bop(peanut, peanut);
```

EXERCISE

- WRITE A FUNCTION THAT TAKES IN THREE PARAMETERS AND PRINTS OUT THE SUM OF ALL THREE PARAMETERS.
  - MAKE SURE TO TEST YOUR FUNCTION BY CALLING IT.

RETURN VALUES

```
function fetchAnApple() {
    return "apple";
}

var pastry = fetchAnApple();
console.log(pastry);

console.log(fetchAnApple());
```

ANATOMY OF A FUNCTION

- THIS FUNCTION FINDS THE AREA OF A TRIANGLE.
- THE FUNCTION IS NAMED FINDAREAOFTRIANGLE.
- IT TAKES IN TWO PARAMETERS. BASE AND HEIGHT.
- IT OUTPUTS A RETURN VALUE. WHICH IS EQUAL TO (BASE * HEIGHT) / 2

```
function findAreaOfTriangle(base, height) {
    return (base * height) / 2;
}
```

EXERCISE

- WHAT IS THE VALUE OF SMITH, STAFFORD, AND SANDER?

```
function heron(t) {
    if(t > 0) {
        return "positive patsy";
    } else if(t < 0) {
        return "negative nancy";
    } else {
        return "zero xander";
    }
}
var smith = heron(-2);
var stafford = heron(0);
var sander = heron(9001);
```

EXERCISE

- WHAT IS THE VALUE OF EMU?
- WHAT IS THE VALUE OF XINU?

```
function hello() {
    return 10;
}

function goodbye(ostrich) {
    return ostrich * 3;
}

var emu = goodbye(hello());
var xinu = goodbye(hello() - 5);
```

EXERCISE

- WHAT ARE THE VALUES OF A, B AND C?

```
function starburst(x, y) {
    if(x > y) {
        return x;
    } else {
        return y;
    }
}

var a = starburst(10, 20);
var b = starburst(4, 5);
var c = starburst(a, b)
```

EXERCISE

- WHAT DOES THE FOLLOWING PRINT OUT?

```
var walter = 3;

for(var i = 0; i < 10; i++) {
    var belt = vulcan(i, walter);
    console.log(belt);
}

function vulcan(boop, beep) {
    var stark = boop * beep;
    return stark;
}
```

EXERCISE

- CREATE A FUNCTION THAT TAKES IN ONE PARAMETER AND PRINTS OUT "HI" FOLLOWED BY THE VALUE OF THAT PARAMETER.
- FOR EXAMPLE, IF THE PARAMETER IS "MELISANDRA", IT SHOULD PRINT "HI MELISANDRA!"

EXERCISE

- CREATE A FUNCTION THAT TAKES IN ONE PARAMETER AND RETURNS THE SQUARE OF THAT PARAMETER.
- REMEMBER TO TEST YOUR FUNCTION BY CALLING IT.

EXERCISE

- CREATE A FUNCTION THAT TAKES TWO PARAMETERS AND RETURNS WHICHEVER ONE IS SMALLER.
  - HINT: USE AN IF STATEMENT

EXERCISE

- CREATE A FUNCTION THAT TAKES TWO PARAMETERS AND RETURNS WHICHEVER ONE IS CLOSER TO 0.

EXERCISE

- CREATE A FUNCTION THAT TAKES IN AN ARRAY. AND FINDS THE MAXIMUM VALUE WITHIN THAT ARRAY.