OBJECTS

BRIEF REVIEW OF OTHER DATA TYPES

- NUMBERS: 1, 2, 3
- STRINGS: "HEY", "JUDE"
- BOOLEANS: TRUE, FALSE
- ARRAYS: [], [7, 8], [TRUE, TRUE, FALSE], [1, "TREE", [1000, 10000, 10000], "CANTERBURY TALES"]

ANATOMY OF AN OBJECT

- OBJECTS HAVE KEYS WHICH POINT TO VALUES.

```
var jackal = {
    habitat: "desert",
    numberOfLegs: 4,
    locomotion: "walking"
};
```

ANATOMY OF AN OBJECT (CONTINUED)

- TO ACCESS A VALUE WITHIN AN OBJECT, USE ITS KEY.

```
jackal.habitat; // "desert"
jackal.numberOfLegs; // 4
```

ANATOMY OF AN OBJECT (CONTINUED)

- OBJECT VALUES CAN ALSO BE ACCESSED WITH ARRAY NOTATION, TAKING IN A STRING

```
jackal['habitat']; // "desert"

var something = 'numberOfLegs';
jackal[something]; // 4
```

OBJECT PROPERTIES

- OBJECT PROPERTIES CAN BE SET AT ANY TIME.

```
jackal.coat = "auburn";
```

- `jackal` NOW HAS FOUR KEYS: `habitat`, `numberOfLegs`, `numberOfLegs`, AND `coat`

EXERCISE

- CREATE AN OBJECT NAMED `artemis`
- GIVE THIS OBJECT THE FOLLOWING KEY/VALUE PAIRS: `numberOfLegs: 2`, `symbol: bow`, AND `occupation: hunting`

CHANGING AN OBJECT'S PROPERTIES

- AN OBJECT'S PROPERTIES CAN BE OVERWRITTEN AT WILL

```
var artemis = {
    numberOfLegs: 2,
    symbol: "bow",
    occupation: "hunting"
}

artemis.symbol = "bowAndQuiver";
```

EXERCISE

- WHAT DOES THE FOLLOWING PRINT OUT?

```
var someRectangle = {
    width: 10,
    height: 20
};

function findArea(rectangle) {
    return rectangle.width * rectangle.height;
}

var area = findArea(someRectangle);
console.log(area);
```

EXERCISE

```
var egg = {
    calories: 80
};
var apple = {
    calories: 20
};
var orangeJuice = {
    calories: 40
};

var breakfast = [egg, apple, orangeJuice];
```

EXERCISE (CONTINUED)

- WHAT DOES IS THE VALUE OF `howMuchBreakfast(breakfast)` ?

```
function howMuchBreakfast(breakfast) {
    var numCalories = 0;
    for(var i = 0; i < breakfast.length; i++) {
        numCalories = numCalories + breakfast[i].calories;
    }

    return numCalories;
}

howMuchBreakfast(breakfast);
```

OBJECT PROPERTY ITERATION

```
var people = {
    brent: 20,
    spiner: 40,
    whoopi: 10
};

for (var person in people) {
    if (people.hasOwnProperty(person)) {
        console.log("person name: " + person);
        console.log("person number: " + people[person]);
    }
}
```

EXERCISE

- WRITE A FUNCTION THAT TAKES IN TWO ARRAYS OF THE SAME LENGTH
- HAVE THE FUNCTION RETURN AN OBJECT WHOSE KEYS ARE THE FIRST ARRAY AND WHOSE VALUES ARE THE SECOND ARRAY.

EXERCISE (CONTINUED)

EXAMPLE:

```
var array1 = ["a", "b", "c"];
var array2 = ["porcelain", "steel", "tar"];
```

BECOMES:

```
{
    a: 'porcelain',
    b: 'steel',
    c: 'tar'
}
```