

Coding Basics badge

Code a Portrait

What are functions?

Functions are a common type of instruction in programming that tell a computer to perform a certain task. For example, look at this function:

```
drawNose();
```

This function would tell a computer to draw a nose — perhaps on a web site page.

In coding, using a function is calling a function, or invoking a function.

In order for a function to be called, it must be previously defined, or declared. That means that once you have created a function, or defined, a function, you can use it, or call it, again and again in your code. The rules for writing code are called *syntax*.

For example, to call a function with Javascript, you would write it like this:

```
theNameOfTheFunction();
```

Here are the rules for calling (or writing) a function in JavaScript:

- A function starts with a name, which can't have spaces in it, or use other special characters (except underscores '_').
- The name can include numbers — as long as they're not at the beginning.
- The name is directly followed by parentheses '()'. The parentheses tell JavaScript to run the function.
- A semicolon shows that the function has ended, just as a period ends a sentence in English. A semicolon looks like this: ';'.

Here's an example of a function call that is correctly written:

```
say_promise();
```

But none of these would work:

```
1st_task();
```

```
make cake;
```

```
do-good ();
```

```
makeCake()again;
```

Why wouldn't they work?

- 1st_eye(); starts with a number.
- make cake; has a space and no parentheses.
- do-good (); uses a hyphen (or minus sign), which JavaScript doesn't allow, and a space between the name and the ().
- makeCake()again; has text after the parentheses.

List of simple functions: Use these functions to....

Choose the color of the drawing	<pre>useBlue() useYellow() useBlack() useRed() useGreen() useBrown() usePink()</pre>
Draw the shape of the face	<pre>drawRoundFace() drawOvalFace() drawSquareFace()</pre>
Draw the eyes	<pre>drawEye() drawWideEye() drawWink()</pre>
Draw facial features	<pre>drawNose() drawEar()</pre>
Draw the mouth	<pre>drawMouthClosed() drawMouthOpen() drawSmile()</pre>
Draw the hair	<pre>drawHair() drawShortHair() drawLongHair()</pre>