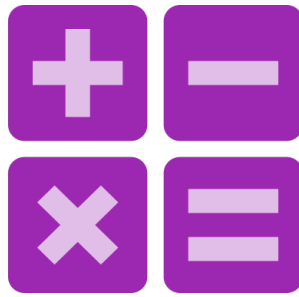


# How to Make an App For Beginners

Lesson 5  
Worksheet



## Welcome!

This exercise continues from the Swift Basics taught in lesson 5.

In this worksheet, you'll be introduced to the many math operations you can do in the Swift programming language.

Just in case you don't remember how you got here (or if you need a refresher), Lesson 5 can be found here:

<https://codewithchris.com/lesson5>

**Step 1:** We're going to be trying out some math operations in a Swift Playground.

Open Xcode and create a new playground  
(File Menu->New->Playground).

From the list of Playground templates, just select "**Blank**"

**Step 2:** Type out the following basic math operations:

```
// Addition
var a = 20 + 5

// Subtraction
var b = 20 - 5

// Multiplication
var c = 20 * 5

// Division
var d = 20 / 5

// Modulus
var e = 20 % 2
```

You can even use the math operators with variables like this:  
(Type this out in your playground too)

```
// Equations with variables
var f = (a * b) + (c / d)
```

**Step 3:** If you want to increment a variable, you can use it as part of the equation (the variable must already have a value) and reassign the new result to itself. Try the following lines in your Playground:

```
// Increment the variable  
f = f + 1  
  
// or...  
f += 1  
  
// Decrement the variable  
f -= 1  
  
// Multiply the variable  
f *= 2  
  
// Divide the variable  
f /= 4
```

**Step 4:** Here are some additional math operators to try in your playground:

```
// Additional operators

// Absolute number
var g = abs(-1)

// Ceiling
var h = ceil(1.8)

// Floor
var i = floor(1.4)

// Square Root
var j = sqrt(36)

// Power
var k = pow(2, 4)
```

**You're done!** If you completed this exercise, celebrate and let me know on Twitter!

<https://twitter.com/CodeWithChris>

If you want to compare your project to mine, you can get it here:

<https://codewithchris.com/code/Lesson5WorksheetPlayground.zip>

**Let's move on to Lesson 6:**

<https://codewithchris.com/lesson6>