

Name: \_\_\_\_\_

# Swift: Booleans, If Statements, While Loops

## Part 1: Evaluating Booleans

Evaluate each bool expression, and then in the right column, write either "true" or "false" accordingly.

Bool Expression	Value
<code>5 == 8</code>	
<code>5 &lt;= 5</code>	
<code>5 != 8</code>	
<code>!(5 == 8)</code>	
<code>"music" &lt; "piano"</code>	
<code>5 == 8    5 &lt; 6</code>	
<code>!(5 == 8    5 &lt; 6)</code>	
<code>5 != 8 &amp;&amp; 5 &gt;= 6</code>	
<code>!(true &amp;&amp; true &amp;&amp; true &amp;&amp; false)</code>	

## Part 2: Evaluating Code - If Statements

Below is some Swift code, all of which compiles fine. Below the code, multiple different outputs are given. For each output, give a value for x and which would cause that output. If an output is not possible, then write "not possible". Note that many values of x could work, you only need to provide one that works.

```
let x: Int = ... // You decide this value

if x < 10 && x >= 1 {
    print(1)
}

if x > 8 {
    print(2)
}

if x % 2 == 0 {
    print(3)
} else if x % 3 == 0 {
    print(4)
} else if x % 5 == 0 {
    print(5)
} else {
    print(6)
}
```

Output	Some value of x, or "not possible"
1, 6	
2, 5	
1, 2, 4	
1, 2, 5	
1, 4	

## Part 3: Evaluating While Loops

Below is some Swift code, with a while loop. Evaluate what the output will be

```
var i = 1
var x = 1
while i < 5 {
    print(x)
    x = x * i
    i = i + 1
}
```

Scratch work:

The output is: