Name: _____

Swift: Bools, If Statements, While Loops

Part 1: Evaluating Bools

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

Bool Expression	Value
`5 == 8`	`false`
`5 <= 5`	`true`
`5 != 8`	`true`
`!(5 == 8)`	`true`
`"music" < "piano"`	`true`
`5 == 8 || 5 < 6`	`true`
`!(5 == 8 || 5 < 6)`	`false`
`5 != 8 && 5 >= 6`	`false`
`!(true && true && true && false)`	`true`

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	7
2, 5	25
1, 2, 4	9
1, 2, 5	not possible
1, 4	3

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:

1

1

2

6