

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

# Swift: While Loops and For Loops

## Part 1: Translate While Loops to For Loops

First, read through the following code that uses a while loop.

Then, rewrite the code to use a for loop, ensuring that it would produce the same output.

```
var i = 0
while i < 100 {
    print(i * i)
    i += 2
}
```

Solution:

```
for i in 0..<50 {
    print((2*i) * (2*i))
}
```

## Part 2: Translate For Loops to While Loops

First, read through the following code that uses a for loop.

Then, rewrite the code to use a while loop, ensuring that it would produce the same output.

```
var squares: [Int] = []
for i in 0..<10 {
    squares.append(i*i)
}

for square in squares {
    print(square)
}
```

Solution:

```
var squares: [Int] = []
var i = 0
while i < 10 {
    squares.append(i*i)
    i += 1
}

i = 0
while i < squares.count {
    print(squares[i])
    i += 1
}
```