QUIZ

What does the following Go program print out?

```
func multiplyThree(x int, y int, z int) int {
  return x * y * z
}

func main() {
  var product int
  product = multiplyThree(2, 2, 2)
  fmt.Println(product)
}
```

Error: `product` defined and not used.

8

Correct! `2 * 2 * 2` = 8!

What would the following block of code print?

```
func returnsTwoThings(message string) (string, int) {
  var newMessage string
  var coolNumber int
  coolNumber = 5
  newMessage = "Surprise!" + message
  return newMessage, coolNumber
}

func main() {
  msg, num := returnsTwoThings("What's up?")
  fmt.Println(msg, num)
}
```

`Error: coolNumber defined and not used.`

`Surprise! What's up? 5`

 Correct!

What key word is used to call a function after the current function finishes?

`wait`

`async`

`defer`

 Correct! `defer` is used to defer a function call until after the current one closes.

What's printed out as a result of the following block of code?

```
package main
import "fmt"

func returnsTen() int {
  return 10
}

func main() {
  coolVariable := returnsTen()
  fmt.Println(coolVariable + 10)
}
```

Error, `coolVariable` defined and not used.

20

Correct! 10 + 10 is 20.

Which of the following use cases are good for functions?

When you're getting a lot of errors, functions will raise fewer errors.

When you need to store a variable but aren't sure if it should be `float32` or `int32`

When a similar pattern of code is used multiple times but with numbers or data tweaked slightly.

Correct! Functions are great for code reuse.

Which of the following defines a function in Go?

```
func goFunction() { }
```

Correct!

```
var goFunction function
```

```
def goFunction:
```

Why does the following block of code fail to compile?

```
package main
import "fmt"

func coolFunction() {
  var coolVariable := 5
}

func main() {
  coolFunction()
  fmt.Println(coolVariable)
}
```

`coolFunction()` defined and not used.

`coolVariable` is referenced outside of the scope it was defined in.

Correct! The error `coolVariable defined and not used`, doesn't fully explain what the misconception would be here.