

FUNCTIONS

GO



WHAT'S A FUNCTION?

A SELF-CONTAINED BLOCK OF CODE THAT PERFORMS A SPECIFIC TASK.

Function Declaration:

```
func functionName(parameters) returnType {  
    // function body  
}
```

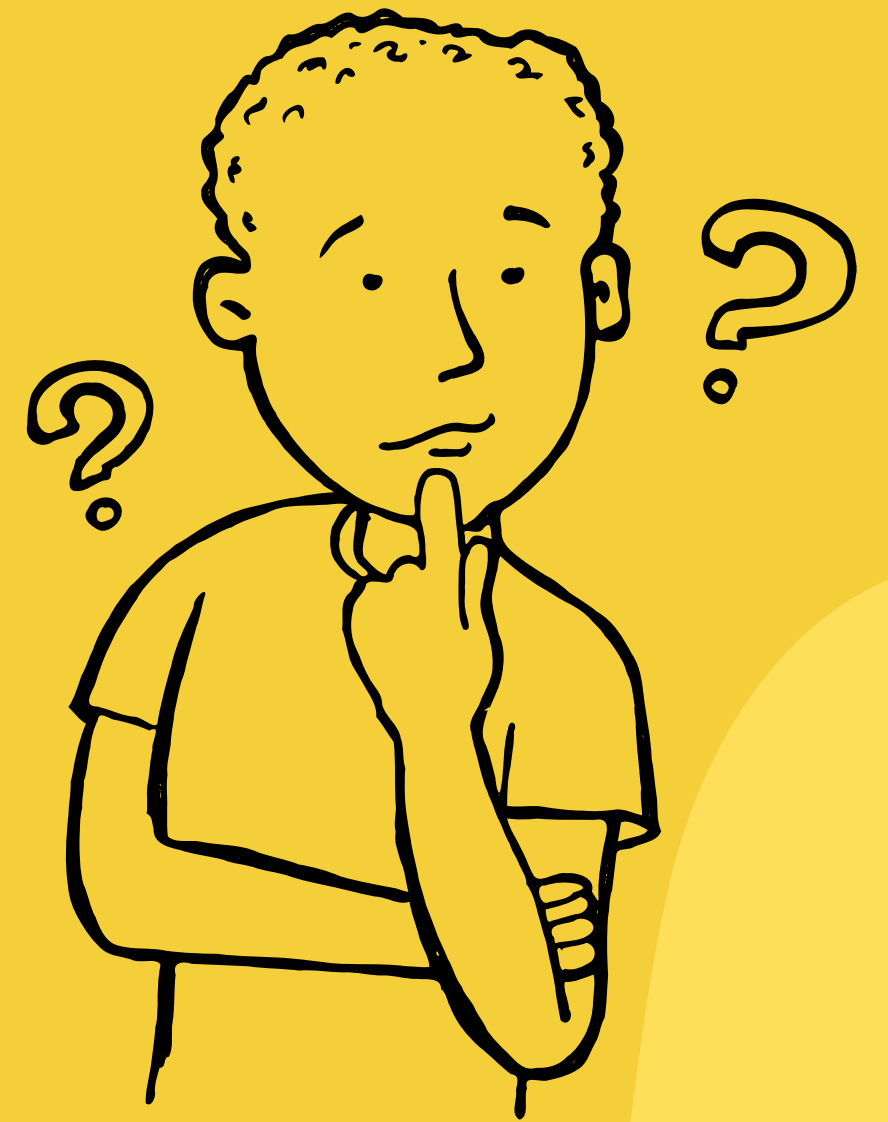
PARAMETER PASSING

IN GO, PARAMETERS ARE ALWAYS PASSED BY VALUE. THIS MEANS THE FUNCTION RECEIVES A COPY OF THE VALUE, NOT THE ORIGINAL.

Parameters: Giving Your Functions Input

MULTIPLE RETURN VALUES

ONE OF GO'S MOST POWERFUL FEATURES IS THE ABILITY FOR FUNCTIONS TO RETURN MULTIPLE VALUES.



NAMED RETURN PARAMETERS

THESE ARE RETURN VALUES IN A FUNCTION THAT ARE GIVEN NAMES IN THE FUNCTION SIGNATURE.

THEY CAN BE USED DIRECTLY IN THE FUNCTION BODY, AND GO WILL AUTOMATICALLY RETURN THEM IF NO EXPLICIT RETURN IS GIVEN.



```
func add(x, y int) (sum int) {  
    sum = x + y  
    return // returns sum  
}
```

VARIADIC FUNCTIONS

THESE FUNCTIONS CAN ACCEPT A VARIABLE NUMBER OF ARGUMENTS OF THE SAME TYPE. THE ... SYNTAX IS USED TO DEFINE THEM.

```
func sum(nums ...int) int {  
    // nums is a slice containing all arguments  
}
```

THANK YOU

