

Here are the solutions to the given questions in Go language:

### **SET A**

#### **1. WAP in Go language to print addition of two numbers using function.**

```
package main

import "fmt"

func add(a, b int) int {
    return a + b
}

func main() {
    num1 := 10
    num2 := 20
    sum := add(num1, num2)
    fmt.Println("Sum of", num1, "and", num2, "is", sum)
}
```

#### **2. WAP in Go language to print recursive sum of digits of a given number.**

```
package main

import "fmt"

func sumOfDigits(n int) int {
    if n == 0 {
        return 0
    }
    return n%10 + sumOfDigits(n/10)
}

func main() {
    number := 12345
    result := sumOfDigits(number)
    fmt.Println("Sum of digits of", number, "is", result)
}
```

#### **3. WAP in Go language using function to check whether accepts number is palindrome or not.**

```
package main

import "fmt"

func isPalindrome(n int) bool {
    original := n
    reversed := 0
    for n > 0 {
        remainder := n % 10
        reversed = reversed*10 + remainder
    }
    return original == reversed
}
```

```

        n /= 10
    }
    return original == reversed
}

func main() {
    number := 121
    if isPalindrome(number) {
        fmt.Println(number, "is a palindrome.")
    } else {
        fmt.Println(number, "is not a palindrome.")
    }
}

```

## SET B

### 1. WAP in Go language to swap two numbers using call by reference concept.

```

package main

import "fmt"

func swap(a, b *int) {
    *a, *b = *b, *a
}

func main() {
    x := 10
    y := 20
    fmt.Println("Before swap:", x, y)
    swap(&x, &y)
    fmt.Println("After swap:", x, y)
}

```

### 2. WAP in Go language to demonstrate use of named returns variables.

```

package main

import "fmt"

func f() (result int) {
    result = 42
    return // Return the named result variable implicitly
}

func main() {
    value := f()
    fmt.Println("Value returned from f():", value)
}

```

### 3. WAP in Go language to show the compiler throws an error if a variable is declared but

**not used.**

```
package main
```

```
func main() {  
    unusedVar := 10 // This variable will cause an error  
}
```

In this code, when you try to compile it, the compiler will report an error because the variable `unusedVar` is declared but never used within the main function.