Introduction - Variables & Opérateurs arithmétiques

Exercice 1

```go
package main

import (
    "fmt"
)

func main() {
    var height int

    fmt.Println(height)
}
```

Exercice 2

```go
package main

import (
    "fmt"
)

func main() {
    i := 314
    f := 3.14
    s := "Hello"
    b := true

    fmt.Println(
        "i:", i,
        "f:", f,
        "s:", s,
        "b:", b,
    )
}
```

Exercice 3

```go
package main

import (
    "fmt"
)

func main() {
    age, yourAge := 10, 20
    age, ratio := 42, 3.14
```

```
    fmt.Println(age, yourAge, ratio)
}
```

Exercice 4

```
package main

import "fmt"

func main() {
    color, color2 := "red", "blue"

    color, color2 = "orange", "green"

    fmt.Println(color, color2)
}
```

```
func main() {
    red, blue := "red", "blue"

    red, blue = blue, red

    fmt.Println(red, blue)
}
```

Exercice 5

```
package main

import "fmt"

func main() {
    a, b := 10, 5.5
    fmt.Println(float64(a) + b)
}
```

Exercice 6

```
package main

import "fmt"

func main() {
    width, height := 10, 2

    width++
    width += height
    width--
    width -= height
```

```
    width *= 20
    width /= 25
    width %= 5

    fmt.Println(width)
}
```

Exercice 7

```
package main

import (
    "fmt"
    "math"
)

func main() {
    var radius, vol float64

    radius = 10

    vol = (4.0 / 3.0) * math.Pi * math.Pow(radius, 3)

    fmt.Printf("radius: %d -> volume: %.2f\n", radius, vol)
}
```

Exercice 8

```
package main

import "fmt"

func main() {
    const taxe = 0.08

    var montantTotal float64
    var pourcentageRemise float64
    var montantFinal float64

    fmt.Println("Entrez le montant total de l'achat : ")
    fmt.Scan(&montantTotal)

    fmt.Println("Entrez le pourcentage de remise : ")
    fmt.Scan(&pourcentageRemise)

    montantRemise := montantTotal * pourcentageRemise / 100
    montantFinal = montantTotal - montantRemise + (montantTotal * taxe)

    fmt.Println("Montant final à payer :", montantFinal)
}
```

Bonus

```go
package main

import (
    "fmt"
    "os"
    "strconv"
)

func main() {
    const taxe = 0.08

    if len(os.Args) < 3 {
        fmt.Println("Entrez le montant totale et le pourcentage de remise en argument")
        os.Exit(1)
    }

    montantTotal, err1 := strconv.ParseFloat(os.Args[1], 64)
    pourcentageRemise, err2 := strconv.ParseFloat(os.Args[2], 64)
    if err1 != nil || err2 != nil {
        fmt.Println("Les arguments doivent être des nombres")
        os.Exit(2)
    }

    montantRemise := montantTotal * pourcentageRemise / 100
    montantFinal := montantTotal - montantRemise + (montantTotal * taxe)

    fmt.Printf("Montant final à payer : %0.2f\n", montantFinal)
}
```