

Certainly, let's address the Go language programming questions from **Set A** you've provided:

1. Write a program in go language to create an interface shape that includes area and perimeter. Implement these methods in circle and rectangle type.

```
package main

import "fmt"
import "math"

// Interface for shapes
type Shape interface {
    Area() float64
    Perimeter() float64
}

// Circle struct
type Circle struct {
    radius float64
}

// Implement Area method for Circle
func (c Circle) Area() float64 {
    return math.Pi * c.radius * c.radius
}

// Implement Perimeter method for Circle
func (c Circle) Perimeter() float64 {
    return 2 * math.Pi * c.radius
}

// Rectangle struct
type Rectangle struct {
    width  float64
    height float64
}

// Implement Area method for Rectangle
func (r Rectangle) Area() float64 {
    return r.width * r.height
}

// Implement Perimeter method for Rectangle
func (r Rectangle) Perimeter() float64 {
    return 2 * (r.width + r.height)
}

func main() {
    circle := Circle{radius: 5}
    rectangle := Rectangle{width: 4, height: 3}
```

```

    fmt.Println("Circle Area:", circle.Area())
    fmt.Println("Circle Perimeter:", circle.Perimeter())
    fmt.Println("Rectangle Area:", rectangle.Area())
    fmt.Println("Rectangle Perimeter:", rectangle.Perimeter())
}

```

Output:

```

Circle Area: 78.53981633974483
Circle Perimeter: 31.41592653589793
Rectangle Area: 12
Rectangle Perimeter: 14

```

2. Write a program in go language to print multiplication of two numbers using method.

```
package main
```

```
import "fmt"
```

```

// Function to multiply two numbers
func multiply(a, b int) int {
    return a * b
}

```

```

func main() {
    num1 := 5
    num2 := 7
    result := multiply(num1, num2)

    fmt.Println("Multiplication of", num1, "and", num2, "is:",
result)
}

```

Output:

```
Multiplication of 5 and 7 is: 35
```

I hope this helps! Feel free to ask if you have any more questions or want to explore other programming concepts in Go.