Tasks (Polimorphism)

#Task1. Photo book class

Create a C# program to manage a photo book using object-oriented programming.

To start, create a class called `PhotoBook` with a private attribute `numPages` of type `int`. It must also have a public method `GetNumberPages` that will return the number of photo book pages.

The default constructor will create an album with 16 pages. There will be an additional constructor, with which we can specify the number of pages we want in the album.

There is also a `BigPhotoBook` class whose constructor will create an album with 64 pages.

Finally create a `PhotoBookTest` class to perform the following actions:

- Create a default photo book and show the number of pages
- Create a photo book with 24 pages and show the number of pages
- Create a large photo book and show the number of pages

Input

```
1.
```

Output

```
1. 16
2. 24
3. 64
```

#Task2. Abstract classes

Create a C# program that implements an abstract class Animal that has a Name property of type text and three methods SetName (string name), GetName and Eat(). The Eat method will be an abstract method of type void.

You will also need to create a Dog class that implements the above Animal class and the Eat method that says the dog is Eating.

To test the program ask the user for a dog name and create a new Dog type object from the Main of the program, give the Dog object a name, and then execute the GetName and Eat methods.

Input

```
1. Tobby
```

Output

```
1. Tobby
2. Eating
```

#Task3. Interfaces

Create a C# program that implements an **IVehicle** interface with two methods, one for Drive of type void and another for Refuel of type bool that has a parameter of type integer with the amount of gasoline to refuel. Then create a Car class with a constructor that receives a parameter with the car's starting gasoline amount and implements the Drive and Refuel methods of the car.

The Drive method will print on the screen that the car is Driving, if the gasoline is greater than 0. The Refuel method will increase the gasoline of the car and return true.

To carry out the tests, create an object of type Car with 0 of gasoline in the Main of the program and ask the user for an amount of gasoline to refuel, finally execute the Drive method of the car.

Input

```
50
```

Output

```
Driving
```