Problem 1
Create two custom exception classes

1. **NotEnoughGas** — checked;
2. **Explosion** — unchecked.

Then create a class **Car** with

1. fields of type **int** corresponding to the amount of fuel in the tank and the number of kilometers travelled. The fields are initialized with the values 35 i 0;
2. method `public void fill()`, which

   - with probability 10%, throws an exception of type **Explosion** (which we do *not* handle);
   - if there was no explosion, fills the tank with additional random number of litres of gasoline (from the range $[15, 35]$) and prints information on the current fuel level.

3. method `public void drive100km() throws NotEnoughGas` which

   - throws an exception of type **NotEnoughGas**, if the fuel level is below 10 litres;
   - if there is enough fuel, consumes 10 litres of gasoline and increments the number of kilometers travelled by 100 km;
   - prints information on the total number of kilometers travelled and the current fuel level.

For example, the following program

download *Excepts.java*

```java
public class Excepts {
    public static void main (String[] args) {
        Car car = new Car();
        while (true) {
            try {
                car.drive100km();
            }
            catch(NotEnoughGas e) {
                System.err.println(e.getMessage());
                car.fill();
            }
        }
    }
}
```

should print something like

```
100km driven, 25 liters left
200km driven, 15 liters left
300km driven, 5 liters left
Only 5 liters. Must fill the tank
After filling 35
400km driven, 25 liters left
500km driven, 15 liters left
600km driven, 5 liters left
Only 5 liters. Must fill the tank
After filling 23
700km driven, 13 liters left
800km driven, 3 liters left
Only 3 liters. Must fill the tank
After filling 20
900km driven, 10 liters left
1000km driven, 0 liters left
Only 0 liters. Must fill the tank
After filling 29
1100km driven, 19 liters left
1200km driven, 9 liters left
Only 9 liters. Must fill the tank
After filling 34
1300km driven, 24 liters left
1400km driven, 14 liters left
1500km driven, 4 liters left
Only 4 liters. Must fill the tank
After filling 19
1600km driven, 9 liters left
Only 9 liters. Must fill the tank
Exception in thread "main" Explosion: BOOOOOOM
        at Car.fill(Excepts.java:21)
        at Excepts.main(Excepts.java:10)
```