CSC 1351: Quiz 1: Interfaces

Name: ________________________________

0.1
What are the primitive types?
boolean, byte, char, short, int, long, float, double

0.2
Does the following code compile? If it does not, how can it be fixed? If it does, what is its output? Does it throw an exception? If so, how can it be fixed?

```java
interface Planet { void orbit(); }
public class Mars implements Planet {
    public void orbit() { }
    public static void main(String[] args) {
        Planet a = new Planet();
        Mars b = new Mars();
    }
}
```

The code does not compile.

replace the code: Planet a = new Planet();
with the code: Planet a = new Mars();

0.3
Does the following code compile? If it does not, how can it be fixed? If it does, what is its output? Does it throw an exception? If so, how can it be fixed?

```java
class Rocket {
    int energy = 3;
    void launch() { energy -= 2; check(); }
    void check() {
        if(energy <= 0) System.out.println("out of power");
        else if(energy <= 1) System.out.println("low power");
    }
}
public class Starship extends Rocket {
    void launch() { energy -= 5; check(); }
    public static void main(String[] args) {
        Rocket r1 = new Rocket();
        Rocket r2 = new Starship();
        r1.launch(); r2.launch();
    }
}
```

low power
out of power