第 5 次平时作业

```java
package work5;

/* Apple 类，重写 equals(),hashcode(),toString()方法 */
public class Apple {
    // 只加入了一个重量属性
    int weight;

    // 构造函数
    public Apple(int weight){
        this.weight = weight;
    }

    /* 重写的 equals()方法*/
    @Override
    public boolean equals(Object obj) {
        /* 先判断是否为本身，
        *  再判断是否指向为空，
        *  然后判断是否属于 Apple 类的实例，比较 weight 值
        *  上述方法可以增加安全性，提高效率*/
        if(this == obj){
            return true;
        }
        if(obj == null){
            return false;
        }
        if(obj instanceof Apple apple){
            return this.weight == apple.weight;
        }

        return false;
    }

    /* 重写的 hashCode()方法，借助特殊素数 31 进行运算*/
    @Override
    public int hashCode() {
        int code = 17;
        code = 31*this.weight + code;
        return code;
    }
    /* 重写的 toString()方法*/
    @Override
    public String toString() {
        return "this is an Apple and its hashcode: 
"+this.hashCode()+", besides its wight is "+this.weight;
    }
}
```

```
package work5;

public class AppleTest {

    public static void main(String[] args) {
        /* 实例化 5 个 Apple 对象*/
        Apple apple1 = new Apple(100);
        Apple apple2 = new Apple(200);
        Apple apple3 = new Apple(300);
        Apple apple4 = new Apple(400);
        Apple apple5 = new Apple(400);

        /* 进行方法校验*/
        System.out.println(apple1.toString());
        System.out.println("apple2's weight: "+apple2.weight+" and 
apple3's weight: "+apple3.weight);
        System.out.println("are apple2 == apple3 ? 
"+apple2.equals(apple3));
        System.out.println("apple4's weight is: "+apple4.weight+" and 
apple5's weight is: "+apple5.weight);
        System.out.println("apple4 == apple5 ? 
"+apple4.equals(apple5));
    }
}
```