Administrative Stuff

- Assignment 10 due today
- Assignment 11 (last one!) posted soon

CIS 1068

November 30, 2017

Last Time

- More practice with classes
- A little bit of recursion
- Inheritance

Fake Quiz. What's Printed?

```java
public class AnotherSimpleRecur {
    public static int f(int x) {
        if (x==1) {
            return 3;
        } else {
            return 2*f(x-1)+1;
        }
    }

    public static void main(String args[]) {
        int x=5;
        System.out.println(f(x));
    }
}
```
Terminology Review. Vehicle’s Relationship with Car

- parent class - child class
- superclass - subclass

Review

- A Car is-a Vehicle
- All Cars are Vehicles, but not all Vehicles are cars
- A Coupe is-a Car and it’s a Vehicle

Review

- In Java, how do we make a class a child of another?

Use the extends keyword

class Car extends Vehicle {
  ...
}
In Java, how do we make a class a child of another?

- Use the `extends` keyword

```java
class Car extends Vehicle {
    // ...
}
```

![Class hierarchy diagram]

- Vehicle
  - Truck
  - Car
  - Motorcycle
  - Sedan
  - Coupe
  - StationWagon