Announcements:
Midterm: Tuesday 10/16, 7-8:15, Bartlett 65
Old Midterm up soon
OWL hand-in for program #3

Tuesday’s class: method mechanics; method design principles; What to make of “this”; parameter passing and its effect on primitive and non-primitive actual parameters.

Method writing –

Infant work first:
Write an Infant method that returns an Infant’s age in years (so: an 18 month kid is 1.5 years old).
Write an Infant method that returns an Infant’s age in days, where 1 month = 30 days (so: a 3 month kid is 60 days old).
Rewrite the Infant constructor using “this”. (see Infant definition on other side – fix lines 7,8)
Write a method that’s passed two double values and writes the greater of the two to the console.
Write a method that’s passed a String, an integer, and a character, and returns true if the character actually appears at the indicated integer (position) in the String.
Write a method that’s passed three ints, and returns true if they are in order, e.g. 3 4 7 are in order, so are 4 4 4; but 3 7 5 is bad.
Write a driver class for SimplePt – below. Create two points, say p and q, and then print the distance between them to the console.
Now write a method that’s passed two points and returns the point closer to the origin (in case of a tie, either will do)
Methods that return objects – see xProjection method below. Write a Point example that returns the calling point reflected through the y axis.. (x,y) -> (-x,y).
public class SimplePt{
    private int x;
    private int y;

    public SimplePt(int x, int y){
        this.x = x; this.y = y;
    }

    public int getX(){
        return x;
    }

    public int getY(){
        return y;
    }

    public double dist(SimplePt other){
        double xDiff = (this.getX() - other.getX());
        double yDiff = (this.getY() - other.getY());
        return Math.sqrt(xDiff*xDiff + yDiff*yDiff);
    }

    public SimplePt xProjection(){ // drops pt to x-axis
        SimplePt q = new SimplePt(this.getX(), 0);
        return q;
    }
}

public class Infant{
    private String name;
    private int age; // age in months

    public Infant(String name, int age){
        ??
    }

    public String getName(){return name;}

    public int getAge(){return age;}

    public void anotherMonth(){age = age + 1;}
}