

# Debugggginnng

# The Plan

- ❖ Define debugging
- ❖ Overview of how to debug
- ❖ Guided practice on **PolarGrid.java**
- ❖ Independent practice on **RectangularGrid.java**

# Debugging Defined

## What it is

- ❖ Solving runtime errors
- ❖ Stepping through code with anticipation
- ❖ Narrowing down the location of the bug
- ❖ Recreating the bug consistently

## What it is not

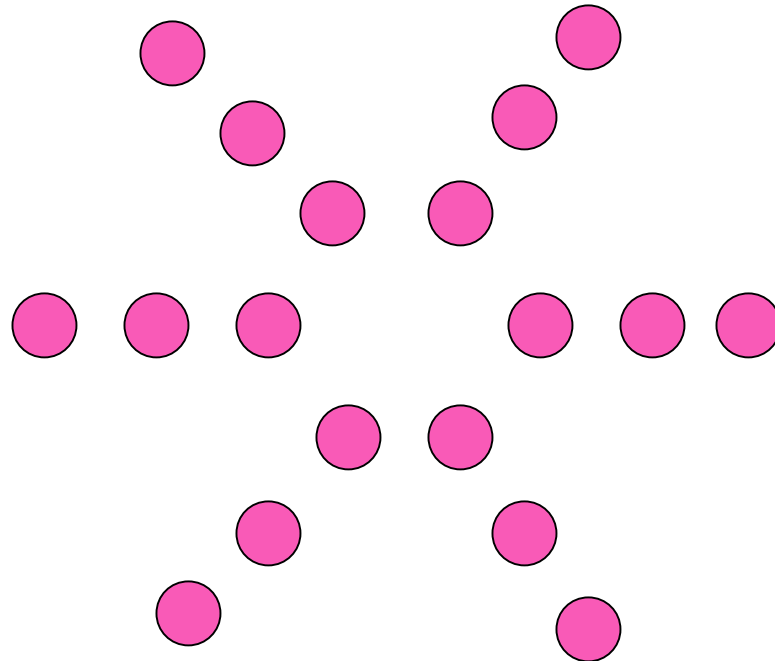
- ❖ Fixing compilation errors
- ❖ Stepping through code blindly

# How to Debug

1. Be able to recreate the bug.
2. Identify the last place the code reaches during correct execution.
3. Anticipating what should happen next and step through the code.
4. When the unanticipated occurs, investigate why and fix the bug.

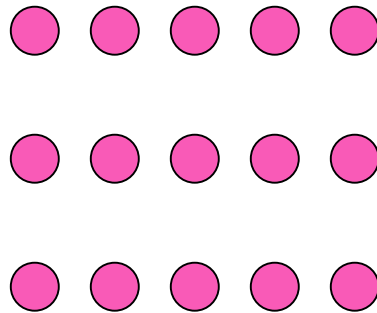
# PolarGrid.java

**This class is intended to eventually be used to layout objects in concentric circles:**



# RectangularGrid.java

**This class is intended to eventually be used to layout  
objects in rows and columns**



# Practice

## Guided Practice

1. **Snarf 04\_buggy.jar under classwork**
2. **Run PolarGrid.java**
3. **Look over the source code for PolarGrid**
4. **Follow the in-class dealing with the bugs**

## Solo (or with a partner) Practice

1. **Fix RectangularGrid.java**