Programming Demos (& Projects)

DeNero

## Programming Demonstrations

#### Purpose of demonstrations:

- Proof
- Example
- Illustration

### Tips:

- Simplify every expression
- Describe what happened after each output
- Motivate your progression
- Practice

(Demo)

## Programming Assignments

## Purpose of assignments:

- Competence
- Generalization
- Synthesis

### Tips:

- Simplify every expression
- Ensure testable progress
- Provide intermediate results

# Project Overview of Ants vs SomeBees



#### What Worked Well?

- Solve 2 problems and you can already play a game.
  - "Ants vs. SomeBees was cool because we could see our progress through the project by playing the game over and over again in stages." (Demo)
- Students develop the game logic; the provided graphics visualize the behavior they implemented.
- It's based on a game that students already know.
  - "There should be more projects like [Ants vs. SomeBees]. I found making a spin-off of a popular game to be extremely fun; it hardly felt like I was doing work!"
- Distributing the test suite with the project.
- Turn-based game with discrete states.
- Pure Python 3 with no external dependencies.

# What Else Worked Well? A Common Enemy

Which of these do you dislike the most?

