Recurring Section 1

Aniruth

Attendance

- If you can’t make it, that’s totally fine! Just send me an email letting me know.

Welcome!

- This is recurring section, where we are going to be working through a new worksheet every time.
- Feel free to ask questions about the material, whether about a specific problem or conceptual.
- This is meant to be for you all – so personalize it how you wish.
  - https://forms.gle/53t8YuAhZxPmvYHj9
- I’m aiming for roughly ~15 minute review, 35 minute worksheet
  - Can probably review/do more problems if we want to do not Berkeley Time though, open to showing up at 4:50

Introductions

- At a minimum:
  - Name
  - Year
  - Major

Policies

- Policies from the rest of class still apply – be respectful, be considerate, and be aware.
- We will not be going ahead of currently covered material/going too far out of scope. I’m more than happy to answer the occasional question, though.
- Keep your cameras on if you can.

Content Review

Types

- There are 8 primitive types:
  - Byte, short, int, long
  - Float, double, boolean, char
- Reference types point to objects in memory.
  - Java allocates a box of 64 bits as an address to the object (it can be all 0s, or null).
- Default values are 0, 0.0, false, null, etc. (but not for local variables, which are those defined inside methods)
  - Link if you want to read more: https://docs.oracle.com/javase/tutorial/java/nutsandbolts/datatypes.html
- Primitive types are inside the box; reference types have an arrow (the pointer) to the object.

Golden Rule of Equals

- b = a copies bits from a into b
    - For primitive types, the entire value is copied.
    - For reference types, the pointer is copied.

Static vs. Instance

- Think of a town with one kind of house.
- This house has one main blueprint that is used whenever a new house is built. Every house has the same square feet and layout.
- However, for every house, there can be different owners, colors of the walls, cars at that house, and objects within!
- The blueprint is like the class; there are instances of the class. But, the layout is static.
- Java’s this keyword is only for instance methods. It doesn’t make sense for static methods.
- Static fields are all shared by every instance of a class.

Equals

- == checks for identical values
  - For primitives, it checks to see if they are the same
  - For reference types, it checks to see if they point to the same object
- .equals checks whether objects are equal
  - Don’t use it for primitives
  - Has to be overridden for the default Object .equals method
    - Don’t worry too much about this part just yet!