9-18

== operator

- Compares 2 variables (primitives or references
- On the stack, not the heap
- True iff variable are identical (same bit pattern)
- Stack equality

equals() is a method mentioned in object

- You need to override for classes

Hashset and Treeset

- hashCode() = x%7

hashCode()

- Inherited from object
- Returns an int
- You have to override if you want your classes to have superpowers (with @Override)
- Returns some function of te values of the instance variables

equals/hashcode contract

- Given any 2 objects x and y, if x.equals(y) is true, then
- x.hashCode() must equal y.hashCOde()
- Collisions should be rare

hashSet()

- Every item must be unique
- Checks for prior presence
- But we still have to add hashCode() and respect the contract
- Quicker than ArrayList
- Like ArrayList but order is arbitrary and not repeatable
- Don’t access by location

Equals and compareTo for treeSet

- a.equals(b) <-> a.compareTo(b) is 0

Hashset

- No duplicate members
- Traversal order is arbitrary and not repeatable
- Insertion time is constant and small, regardless of size

treeSet

- No duplicate members
- Traversal order is determined by compareTo()

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