

EECS2030 Advanced Object-Oriented Programming
(Fall 2021)

Q&A - Lecture 5a

Thursday, November 4

Announcement

1. type cases (completion vs. class+Exception)
2. instanceof op.

- Lecture W8 (released: Nov. 2)
- Programming Test 2 (due: Nov 4/Nov 5)
- Lab4 to be released on Monday, Nov 8
- Marks to be released by the end of Friday, Nov 5

↳ LabOp1
LabOp2
Lab1
ProgTest1

- ePost
- remote lab
- regrading requests

Written Test 2
↳ release Fri

→ @Override ✓ → force you to re-declare and re-define methods.

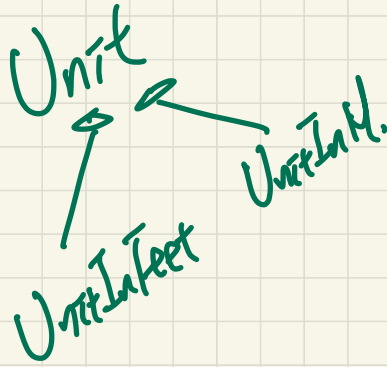
· equals · also fine

totally

Practice tests (written & programming)

↳ optional

↳ not impacting your grade.



class Unit {

boolean isMeter;
 int width; int length;

Unit (String f, int w, int l) {

isMeter = false;

...

}

void toggle() {

if (isMeter) { isMeter = false; }

else { isMeter = true; }

}

String toString() { if (isMeter) {

→ else { width * length }

}

int i = ...

(double) i

coerced

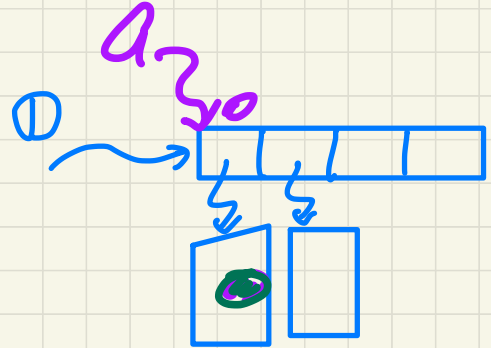
double widthInM = $\frac{\text{int. this.width} * 0.3048}{0.3048}$

② this.width * 0.34

Shallow Copies vs Deep Copies

obj. getObj1()

↳ array



A[] a =
obj.getObj1();

obj. getObj2()

a[0].setX(...);

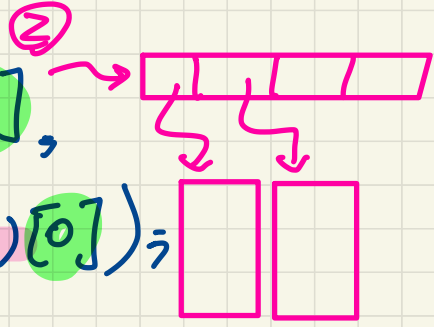
assertNotSame

obj.getObj1()[0]

obj.getObj1()[0];

↳ deep copies.

assertEquals (obj.getObj1()[0],
obj.getObj1()[0])



$$\text{int } \underline{i} = 23 \Rightarrow$$

$$\text{int } j = 4 \Rightarrow$$

$$i / j \rightarrow 5 \text{ (quotient)}$$

$$i \% j \rightarrow 3 \text{ (remainder)}$$

$$\textcircled{1} \text{ double d = i ;$$

$\text{double result} = \text{d / j ;} \rightarrow \underline{5.75}$

$$\textcircled{2} \text{ (double } i) / j$$

3311

Single-Choice Principle

not related about att.-methods

a change should be made in a single or minimum # of places.

Cohesion

all attributes & methods are related to the same theme

not about duplicates

↳ ECTS 2031

→ do one thing and do it well
(command) ↳ cd rm

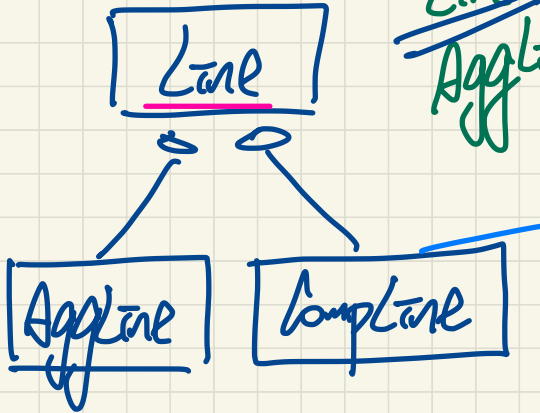
→ violating it means:

- for large-scaled project
⇒ "superman" class

?? l = new AggLine(--);

DT.

Line
AggLine



- Valid :-
- ① AggLine is a descendant class of Line
 - ② AggLine can fulfill exp. on Line.