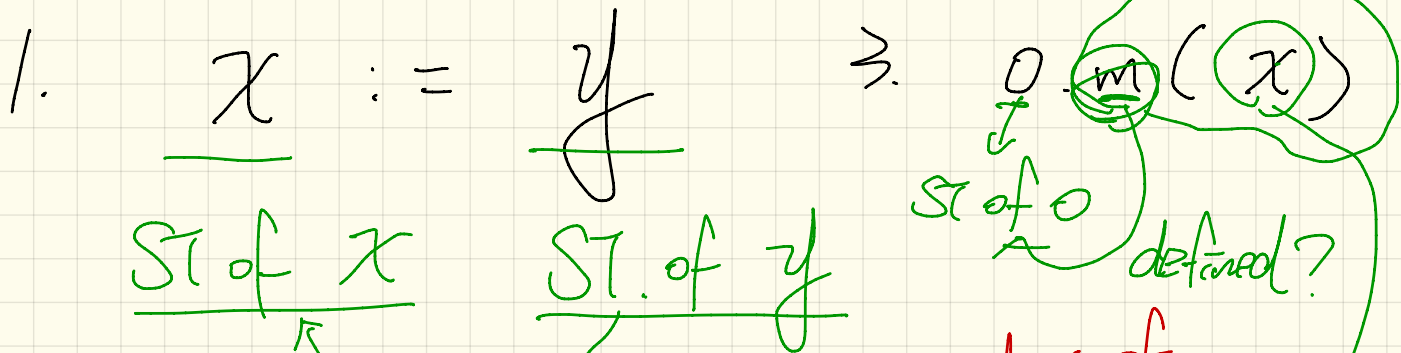
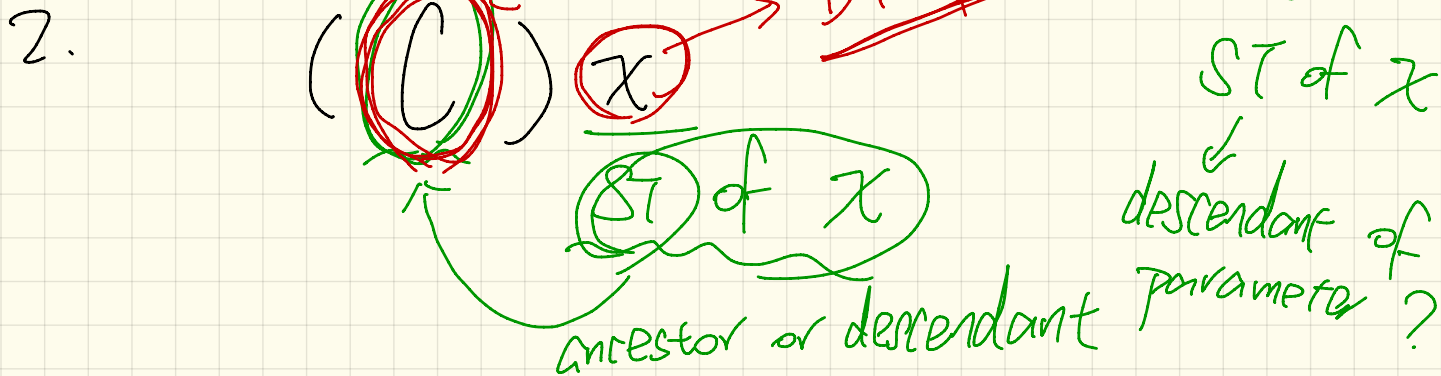


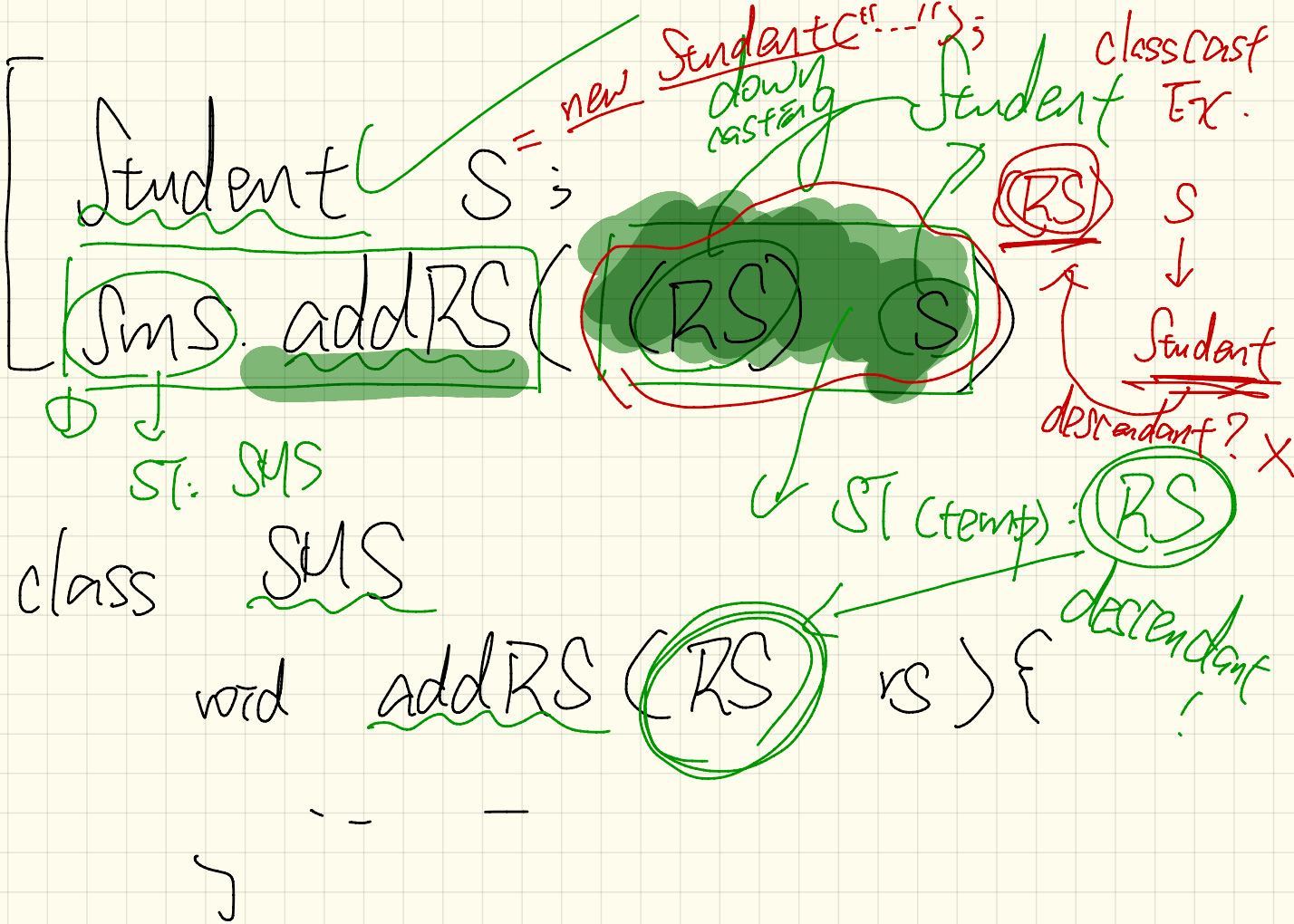
Lecture 23

Tuesday Nov. 28



descendant?      a descendant of C?





Student S = new Student();

ImS.addRS ((RS) S);

cast S to RS,

so that we can apply

expectation of (RS)

on S.

S.pr

pr

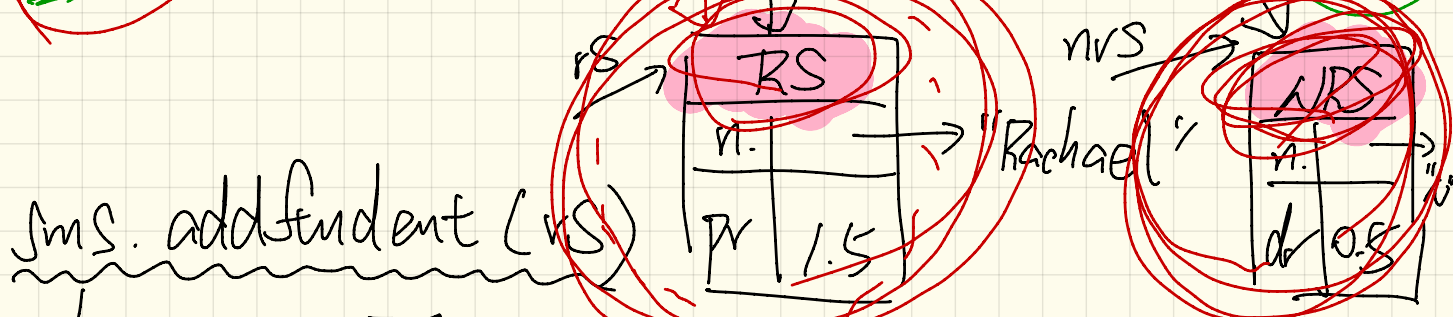
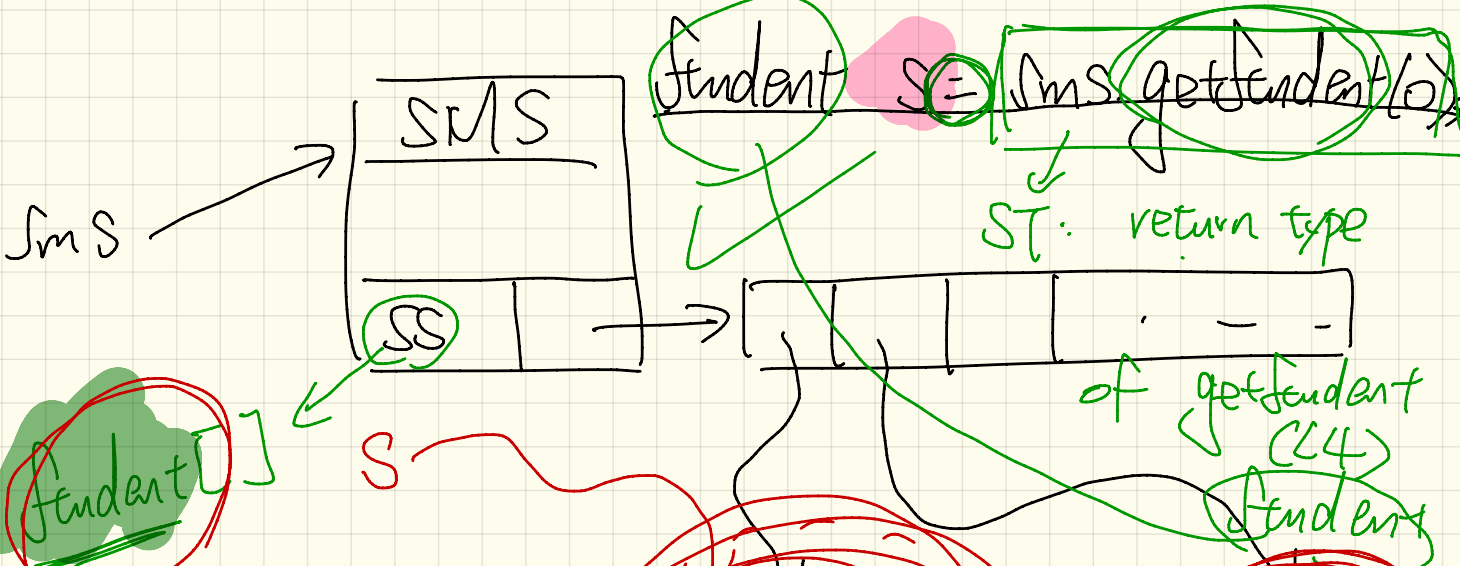
cannot meet exp.

↓

Class

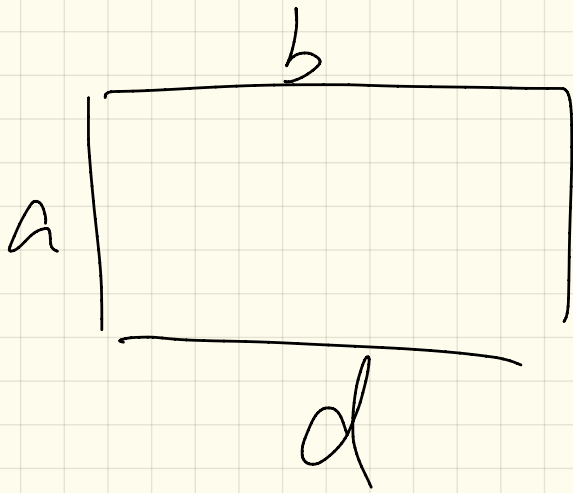
cast

Exp.



sms.addStudent(rs)

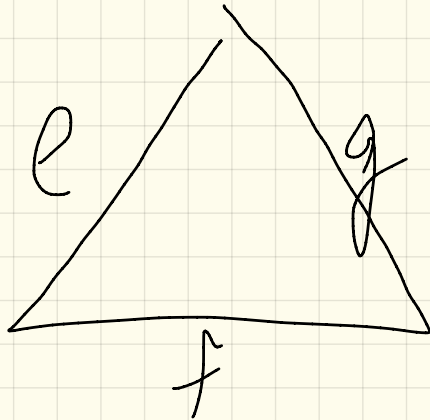
↳ `sms.ss[0] = rs;`  
`sms.addStudent(nrs) → sms.ss[1] = nrs;`



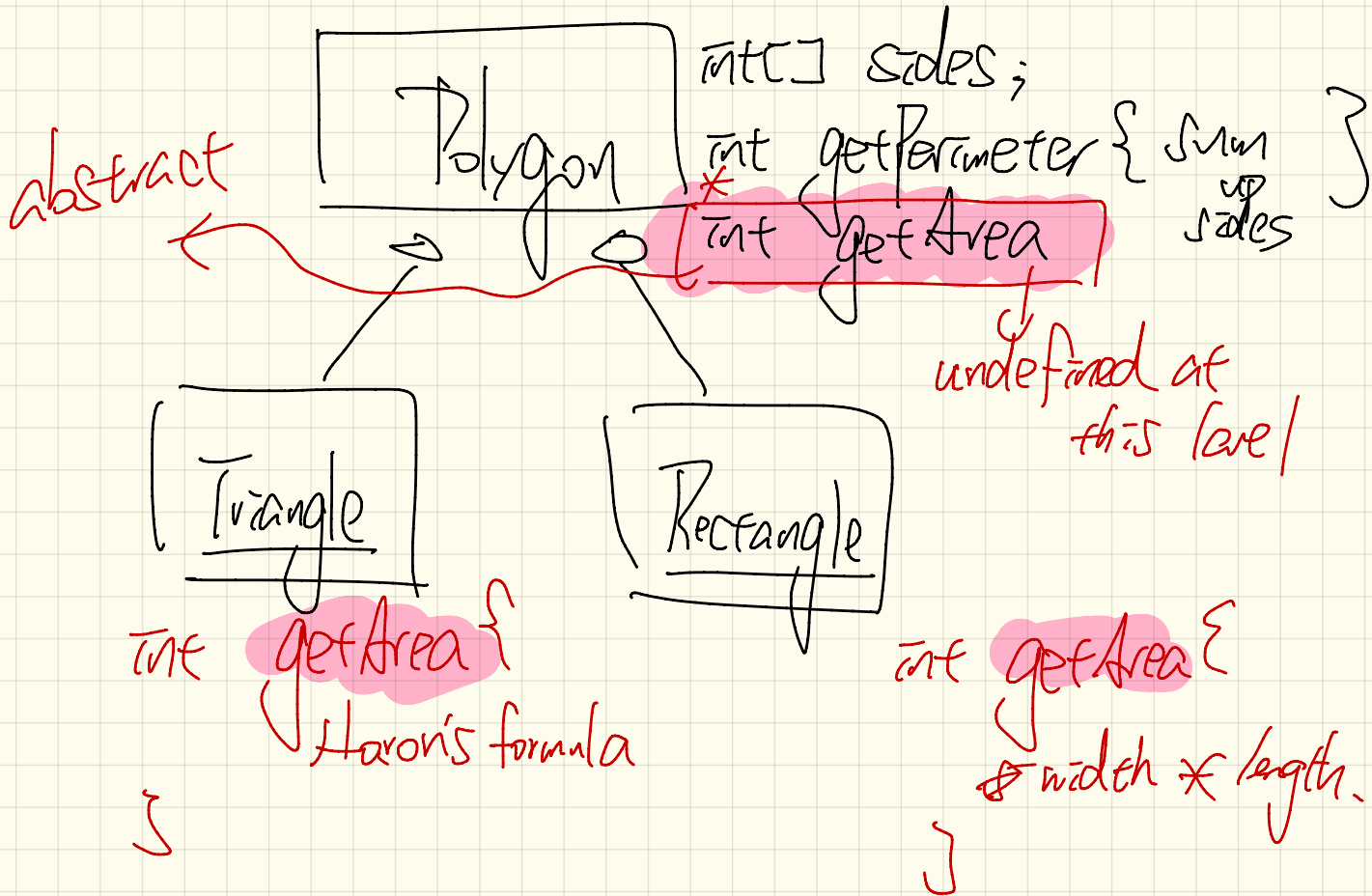
$$a + b + c + d$$

C  
int[] sides;

~~Perimeter~~  
Perimeter



$$e + g + f$$



~~Polygon~~

P = new

~~Polygon();~~

abstract class Polygon {

↓

can't use

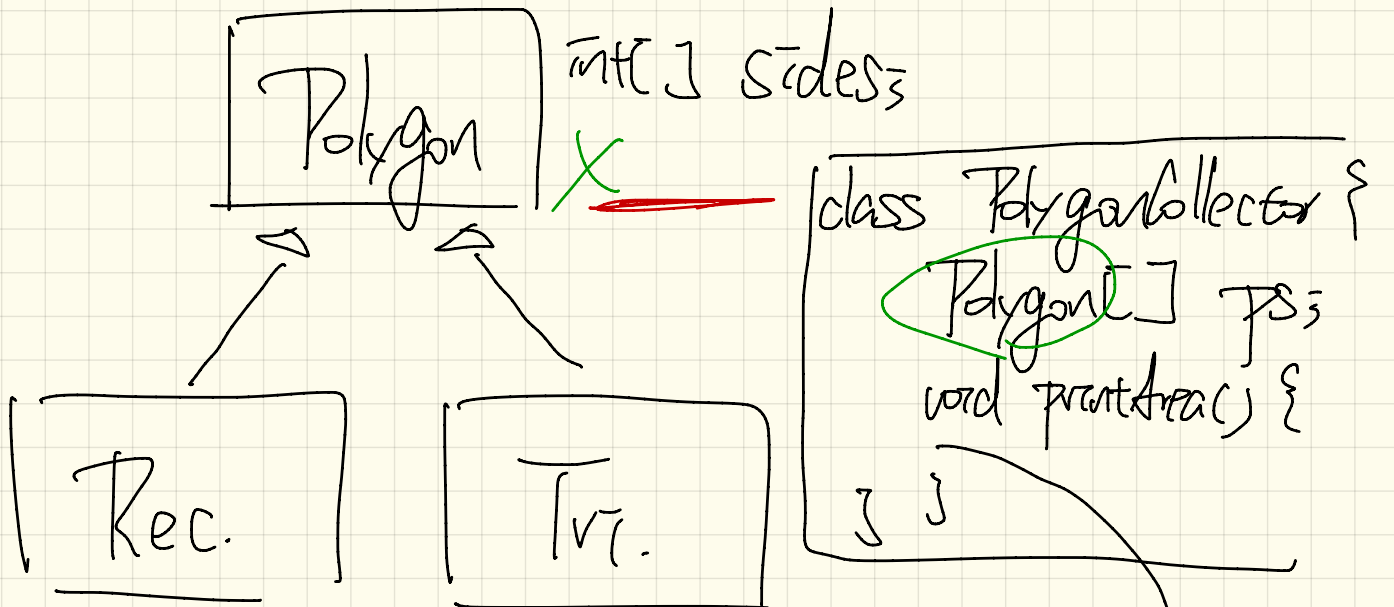
abstract class as DT.

↓

P. ~~getArea()~~ ?

crash :( undefined!



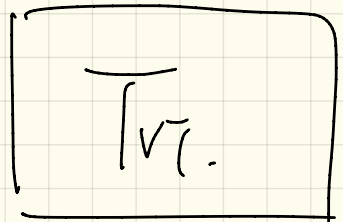


int sides

X

```

class PolygonCollector {
    Polygon[] ps;
    void printArea() {
    }
}
  
```



```

getArea() {--}
  
```

```

getArea {--}
  
```

⇒ declare getArea() in Polygon (abstract)

getArea() not defined in Polygon

```

for (Polygon p : ps) {
    p.getArea();
}
  
```