

Quiz Part 1 – Define Your own class

Quiz Part 2 – Inheritance

When you decide to override method in class B that inherits from class A, it's because you want that method to work "differently" (In Pacman, we did not override move because that works the same for all the types of objects. But we would override any behavior we want working differently than the base class.)

A ref = new B(...)

Here this is valid as long as B extends A directly or indirectly.

B extends A

C extends B

D extends C

A reference can point to a A, B, C or D object

B reference can point to a B, C or D object

C reference can point to a C or D object

D reference can only point to a D object

Sudoku

let's say $r = 7$ $c = 5$

$r/3 = 2$, so that means that we're in the 2 labeled box for rows, each box is 3 rows, so we are going to start at $r = 2 \times 3 = 6$

$c/3 = 1$, so that means we are in the 1 labeled box for cols, each box is 3 cols, so we are going to start at $c = 1 \times 3 = 3$

The top left coordinate is (6, 3), bottom right is (8, 5) and this contains grid square (7, 5)

Tracing Question #2

```
test1 --> (x=0)
test2 --> (x=0,y=0,z=0) <---- temp
test3-->(x=4,y=6,z=8)
```

But after we do temp = new A()

```
test1 --> (x=0)
test2 --> (x=0,y=0,z=0)
test3-->(x=4,y=6,z=8)
temp -->(x=0)
test4 --> (x=5,y=5)
```

Output

```
In Default A.
In Default A.
In Default B.
In C(int) .
In Default A.
In Default B.
In C(int,int,int) .
In B's function.
A lied.
In B's function.
A lied.
In Default A.
Only A has this function.
In A(int) .
In B(int) .
Only A has this function.
```