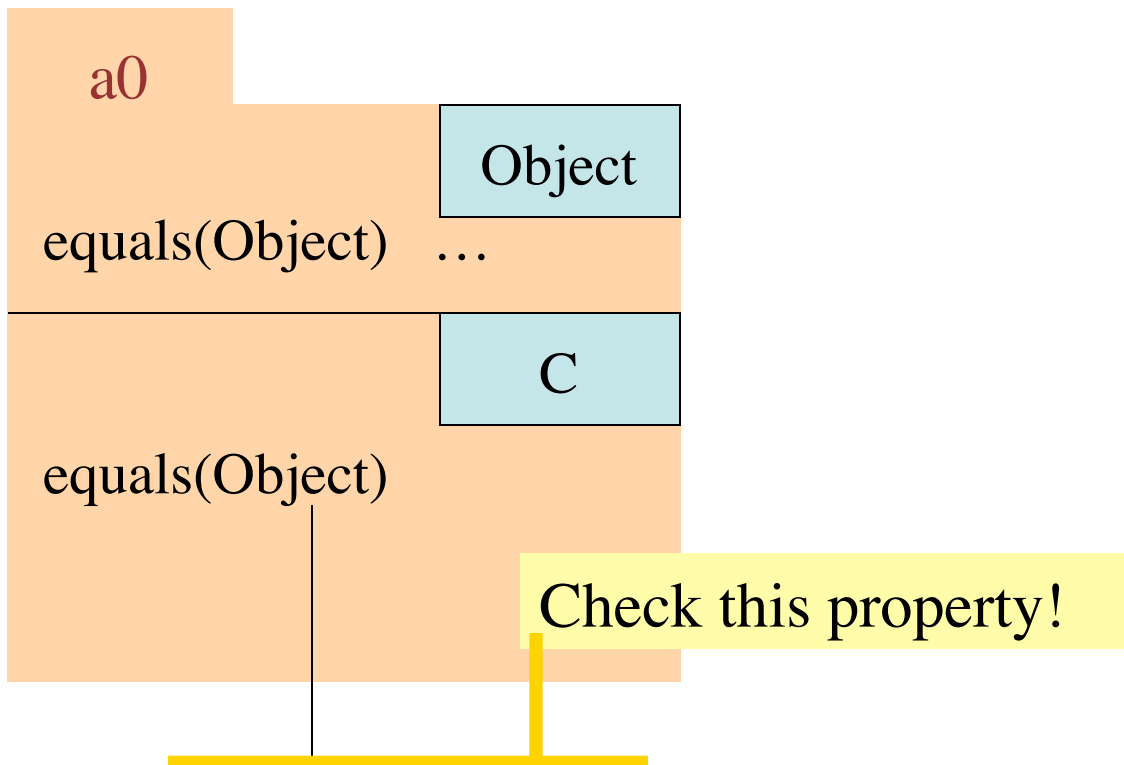


Overriding function equals



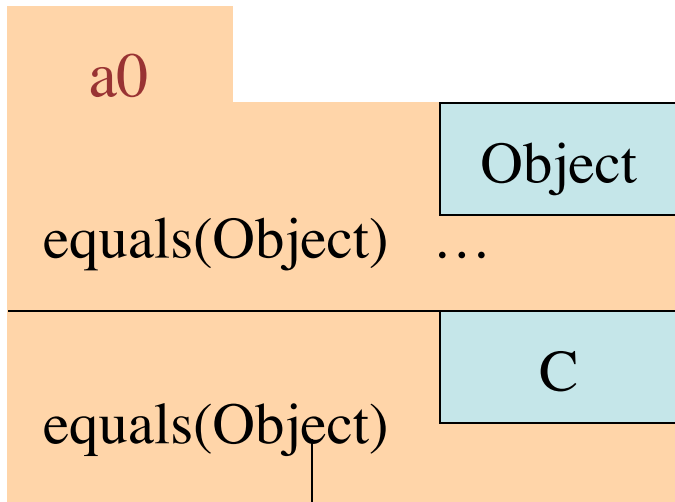
```
/** = "Object ob has class C & equals this object */  
public boolean equals(Object ob)
```

type must be Object.

```
c1 a0
```

```
c1.equals(new Integer(5)) is false
```

Overriding function equals



```
/** = "Object ob has class C & equals this object */  
public boolean equals(Object ob)
```

But it should be an equality relation!

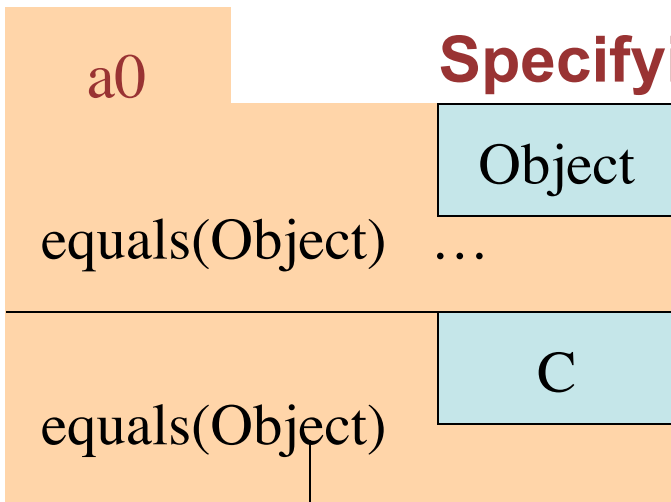
For `c1`, `c2`, `c3` not null and of the same class

Reflexive: `c1.equals(c1)` is true.

Symmetric: `c1.equals(c2)` and
`c2.equals(c1)` yield same value.

Transitive: If `c1.equals(c2)` and
`c2.equals(c3)` are true,
then so is `c1.equals(c3)`.

Specifying equals



```
/** = "Object ob has class C & equals this object */  
public boolean equals(Object ob)
```

Make specification *abstract*:

in terms of the meaning of the class, not
always in terms of fields, which the user may
not know about.

Example: String equality:

```
/** = "ob is a String and contains the same  
sequence of characters as this String". */  
public boolean equals(Object ob)
```