

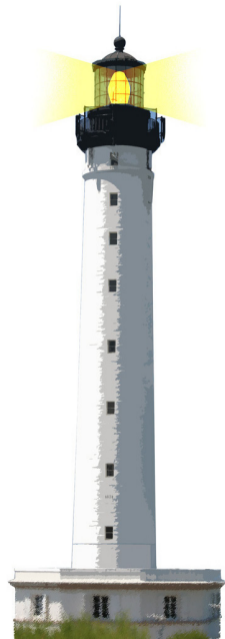
Did You Really Understand Super?

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W6S01



<http://www.pharo.org>



What You Will Learn

Revisit

- super
- Message lookup
- Class methods



A Little Puzzle

```
Dice class >> new
```

```
| inst |  
inst := super new.  
inst initialize.  
^ inst
```

We execute the following expression: Dice new

Questions

```
Dice class >> new
```

```
| inst |  
inst := super new.  
inst initialize.  
^ inst
```

- What is inst?
- What is super?
- What is super new?



Hint: super is Not...

```
Dice class >> new
```

```
| inst |  
inst := super new.  
inst initialize.  
^ inst
```

- No super is not the superclass
- No inst is not an instance of the superclass



Hint 2: super is the Message Receiver

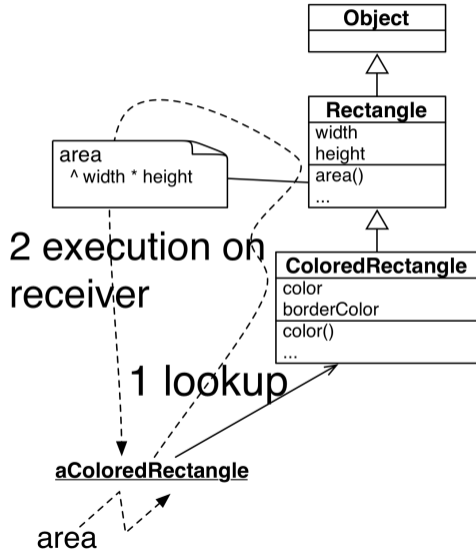
```
Dice class >> new
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```
| inst |  
inst := super new.  
inst initialize.  
^ inst
```

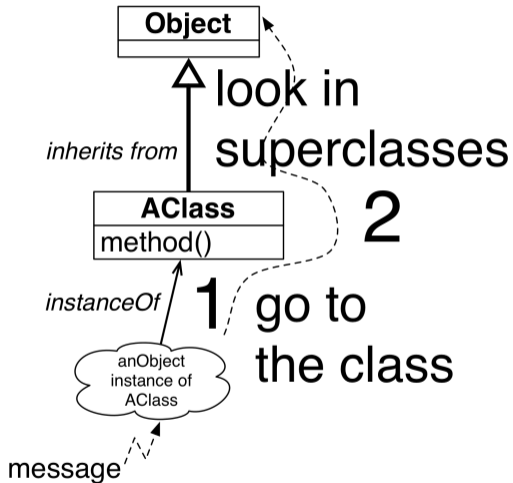
- The message is Dice new
- So the receiver is the class Dice



Sending a Message: Lookup + Apply on Receiver



Remember: Method Lookup



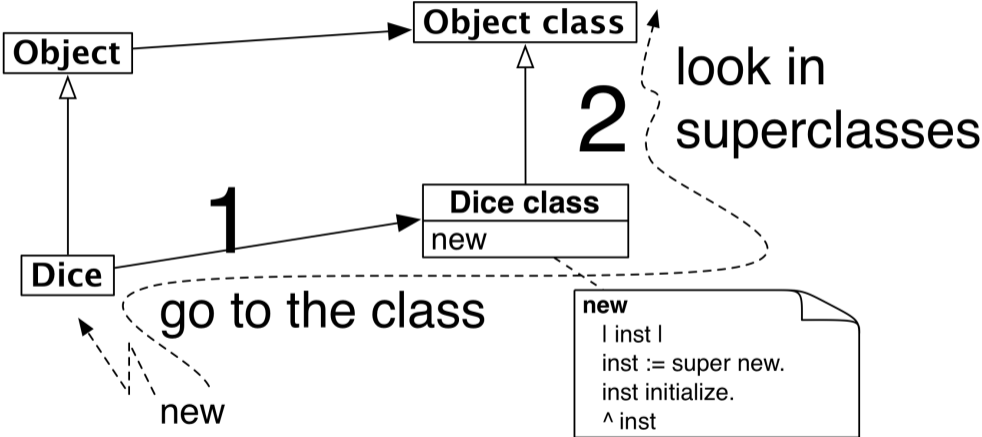
Solution

```
Dice class >> new
```

```
| inst |  
inst := super new.  
inst initialize.  
^ inst
```

- super is the receiver: the class Dice
- Look for new in the superclass of the class Dice class (Pay attention not Dice)
- Once found we apply to the receiver: Dice
- We get an instance of the class Dice and send it initialize and return it

Solution



Summary

- Sending a message is looking up for the method and applying it on the receiver
- Now you should really understand `super` :)
- `super` is the receiver of the message and the method lookup starts in the superclass of the class containing the expression



Challenge?



Challenge!

Imagine we have

```
A >> foo  
  ^ super class == self class
```

What is the result of A new foo and why?



A course by



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