



22.3. Overriding Methods

If a method is defined for a class, and also defined for its parent class, the subclass' method is called and not the parent's. This follows from the rules for looking up attributes that you saw in the previous section.

We can use the same idea to understand overriding methods.

Let's return to our idea of making Cats, Dogs, and other pets generate a string for their "mood" differently.

Here's the original Pet class again.

```
1 from random import randrange
2
3 # Here's the original Pet class
4 class Pet():
5     boredom_decrement = 4
6     hunger_decrement = 6
7     boredom_threshold = 5
8     hunger_threshold = 10
9     sounds = ['Mrrip']
10    def __init__(self, name = "Kitty"):
11        self.name = name
12        self.hunger = randrange(self.hunger_threshold)
13        self.boredom = randrange(self.boredom_threshold)
14        self.sounds = self.sounds[:] # copy the class attribute, so that when we m
15
```

Activity: 1 -- ActiveCode (inheritance_pet_class)

Now let's make two subclasses, Dog and Cat. Dogs are always happy unless they are bored *and* hungry. Cats, on the other hand, are happy only if they are fed and if their boredom level is in a narrow range and, even then, only with probability 1/2.

```
1 class Cat(Pet):
2     sounds = ['Meow']
3
4     def mood(self):
5         if self.hunger > self.hunger_threshold:
6             return "hungry"
7         if self.boredom < 2:
8             return "grumpy; leave me alone"
9         elif self.boredom > self.boredom_threshold:
10            return "bored"
11        elif randrange(2) == 0:
12            return "randomly annoyed"
13        else:
14            return "happy"
15
```

```
grumpy; leave me alone
randomly annoyed
randomly annoyed
randomly annoyed
randomly annoyed
happy
randomly annoyed
happy
happy
randomly annoyed
happy
happy
```

Activity: 2 -- ActiveCode (inheritance_override)

You have attempted 3 of 2 activities on this page

✓ Completed. Well Done!

22.2. Inheriting Variables and Methods">

Inheriting Variables and Methods">

22.4. Invoking the Parent Class's Method">

