

- Questions

- ▼ More objects

- ▼ define a Rectangle class with three instance variables: a Point for the lower left corner, a width, and a height

- the origin is in the lower left
- `get_corners` method

- ▼ 

```
class Fraction():  
    def value():  
        return top / bot
```

- ▼ what's missing

- ```
def __init__(self, top, bot):  
    self.top = top  
    self.bot = bot
```
- ```
def value(self):  
    return self.top / self.bot
```

- ▼ `Fraction(3, 4) == Fraction(3, 4)`

- `__eq__`

- ▼ `Fraction(1, 2) > Fraction(1, 3)`

- `__gt__`

- Interlude: selecting a data structure

- ▼ Advanced objects

- ▼ static variables

- the enemies in Space Invaders speed up the fewer of them there are (<https://www.youtube.com/watch?v=MU4psw3ccUI>)

- `class Alien():`  
`count = 0`  
  
`def __init__(self):`  
`Alien.count += 1`  
  
`def die(self):`  
`Alien.count -= 1`  
  
`aliens = []`  
`print(Alien.count)`  
`for i in range(11):`  
`aliens.append(Alien())`  
`print(Alien.count)`  
`aliens[0].die()`  
`print(Alien.count)`

## ▼ inheritance

- `class Person():`  
`def __init__(self, fname, lname):`  
`self.firstname = fname`  
`self.lastname = lname`  
  
`def fullname(self):`  
`return self.firstname + " " + self.lastname`  
  
`class Student(Person):`  
`def __init__(self, fname, lname, year):`  
`super().__init__(fname, lname)`  
`self.graduation_year = year`  
  
`def fullname(self):`  
`return self.firstname + " " + self.lastname + ", class of`  
`" + str(self.graduation_year)`

## • Homework 6 warmup