“Special Methods” for Python Classes

Each of these is called automatically when certain situations occur.
`__init__(self, <optional additional args>)`

This is called when an object of the class is constructed. If the class name is C we make a new object of the class with

```python
C( <value for each optional arg> )
```
__str__ (self)

This should return a string. It is called automatically whenever the system wants a string representation for an object of the class.

If x is an object of the class, this is returned by

    str(x)

And it is what is printed by

    print(x)
```python
__add__(self, x)
__sub__(self, x)
__mul__(self, x)
__div__(self, x)
```

These allow the arithmetic operators + - * / to be used with objects of a class. Each should return a new object. In the expression `a op b` self is a and x is b.
by providing the methods 
__lt__(self, x)
__le__(self, x)
__gt__(self, x)
__ge__(self, x)
__eq__(self, x)
__ne__(self, x)

These allow you to use the comparison operators < <= > >= == and != with objects of the class. Each should return True or False. To sort a list of objects you should have __lt__(self, x) defined for the class.