

OOP Python 6/10/25

1) Hmk Feedback

2) Classes + Overview of Week

What is a class?

Basic data storage: integer 20 } Atoms
float 3.26 } of
string 'Hello' programming
boolean True or False

Time

hours int } different pieces of info to build
minutes int } by object.

time t



Class is a blueprint for a new data type AND it contains associated functions (methods) that operate only on objects of this type.

What is needed to "build" a class?

0. Instance Variables - pieces that build the object.

1. Constructor - it builds a new object of the class (there can be more than one of these.)

2. Methods which operate on the object.

Example 1: Time

Example 2: Cell Phone

Example #3? → Fraction

Time object

~~main~~
main

call to
constructor
--init--
mytime

mytime = Time(117)

othertime = Time(5, 3)

othertime

```
if mytime.equals(othertime):  
    print("same")  
else:  
    print("diff")
```

~~--init--~~
~~no / 117~~

hours 1
minutes 57

--init--

m 5

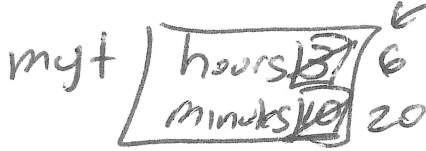
h 3

hours 3
minutes 5

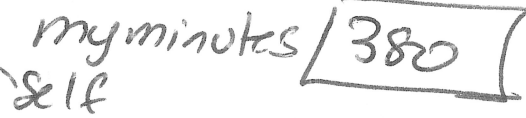
equals

self time2

main



doublet

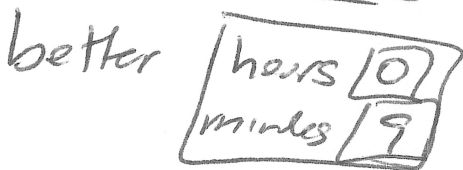
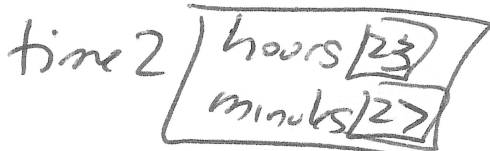


myt.doublet()

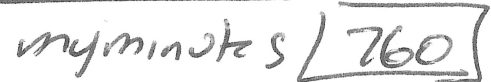
newt = myt.doublet2()

newt

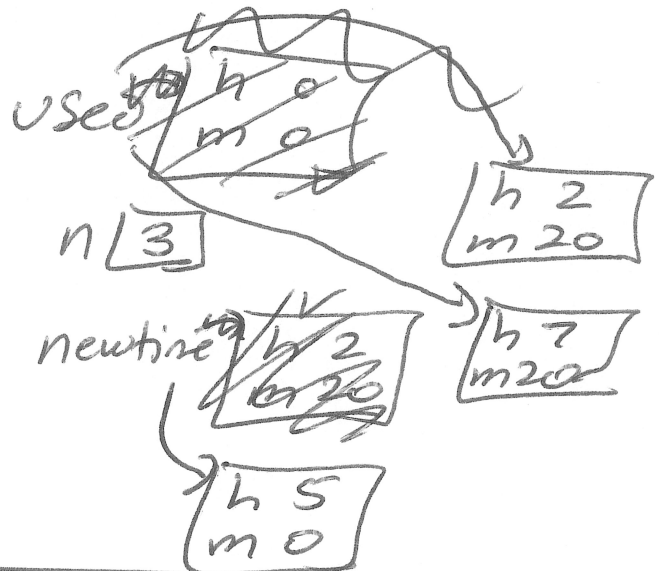
run ex



doublet2



add time



Self.num

self.den

frac2.num

frac2.den

$\frac{\text{Self.num} \times \text{frac2.den} + \text{frac2.num} \times \text{Self.den}}{\text{Self.den} \times \text{frac2.den}}$

Self.den * frac2.den

→ newNum

→ newDen