1. class Thing:

pass

example = Thing()

print(example)

print(Thing)

o/p = <\_\_main\_\_.Thing object at 0x7ffff784b640>

<class '\_\_main\_\_.Thing'>

2. class Thing2:

letters = "abc"

a = Thing2()

print(Thing2.letters)

3. class Thing3:

def \_\_init\_\_(self):

self.letters='xyz'

a = Thing3()

print(a.letters)

4. class Element:

def \_\_init\_\_(self,name,symbol,number):

self.name=name

self.symbol=symbol

self.number=number

a = Element('Hydrogen','H',1)

5. el\_dict = {'name': 'Hydrogen', 'symbol': 'H', 'number': 1}

hydrogen = Element(el\_dict['name'], el\_dict['symbol'], el\_dict['number'])

hydrogen.name

6. class Element:

def \_\_init\_\_(self,name,symbol,number):

self.name=name

self.symbol=symbol

self.number=number

def dump(self):

print('name=%s, symbol=%s, number=%s' %

(self.name, self.symbol, self.number))

a = Element('Hydrogen','H',1)

a.dump()

7. class Element:

def \_\_init\_\_(self,name,symbol,number):

self.name=name

self.symbol=symbol

self.number=number

def \_\_str\_\_(self):

try:

if type(self.number) == str:

print("do nothing")

else:

print('name=%s, symbol=%s, number=%s' %

(self.name, self.symbol, self.number))

except Exception as e:

print("this is my error message", e)

a = Element('Hydrogen','H',1)

print(a)

8. class Element:

def \_\_init\_\_(self, name, symbol, number):

self.\_\_name = name

self.\_\_symbol = symbol

self.\_\_number = number

@property

def name(self):

return self.\_\_name

@property

def symbol(self):

return self.\_\_symbol

@property

def number(self):

return self.\_\_number

hydrogen = Element('Hydrogen', 'H', 1)

9. class Bear:

def eats(self):

return 'berries'

class Rabbit:

def eats(self):

return 'clover'

class Octothorpe:

def eats(S):

return 'campers'

a = Bear()

print(a.eats())

b = Rabbit()

print(b.eats())

c = Octothorpe()

print(c.eats())

10. class Laser:

def does(self):

return 'disintegrate'

class Claw:

def does(self):

return 'crush'

class SmartPhone:

def does(S):

return 'ring'

class Robot:

def \_\_init\_\_(self):

self.laser = Laser()

self.claw = Claw()

self.sp = SmartPhone()

def does(self):

print(self.laser.does())

a = Robot()

a.does()