Sets

>>> a={1,2,3}

>>> a

{1, 2, 3}

>>> print(a)

{1, 2, 3}

>>> b={1,2,3,1.1,"Hello"}

>>> b

{1, 2, 3, 'Hello', 1.1}

>>> c={1,2,3,3}

>>> c

{1, 2, 3}

>>> d={[1,2,3]}

Traceback (most recent call last):

File "<pyshell#9>", line 1, in <module>

d={[1,2,3]}

TypeError: unhashable type: 'list'

>>> d={(1,2,3),2,3}

>>> d

{2, 3, (1, 2, 3)}

>>> e={{1:a,2:b}}

Traceback (most recent call last):

File "<pyshell#14>", line 1, in <module>

e={{1:a,2:b}}

TypeError: unhashable type: 'dict'

>>> f=[1,2,3]

>>> g=set(f)

>>> g

{1, 2, 3}

>>> f=(1,2,3)

>>> g=set(f)

>>> g

{1, 2, 3}

>>> f={1:a,2:b}

>>> gf=set(f)

>>> gf

{1, 2}

>>> g=set()

>>> print(type(g))

<class 'set'>

>>> b.add(4)

>>> b.add(4,5,6)

Traceback (most recent call last):

File "<pyshell#27>", line 1, in <module>

TypeError: add() takes exactly one argument (3 given)

>>> b.update([4,5,6,"Hello",(5,6,7)])

>>> b

{1, 2, 3, 'Hello', 4, 5, 6, (5, 6, 7), 1.1}

>>> b.add([77,88,99])

Traceback (most recent call last):

File "<pyshell#30>", line 1, in <module>

b.add([77,88,99])

TypeError: unhashable type: 'list'

>>> b.update([77,88,99])

>>> b

{1, 2, 3, 'Hello', 4, 5, 6, (5, 6, 7), 99, 1.1, 77, 88}

>>> b.update({12,23})

>>> b

{1, 2, 3, 'Hello', 4, 5, 6, (5, 6, 7), 99, 12, 1.1, 77, 23, 88}

>>> b.remove(2)

>>> b.discard(3)

>>> b

{1, 'Hello', 4, 5, 6, (5, 6, 7), 99, 12, 1.1, 77, 23, 88}

>>> b.remove(56)

Traceback (most recent call last):

File "<pyshell#39>", line 1, in <module>

b.remove(56)

KeyError: 56

>>> b.discard(123)

>>> b

{1, 'Hello', 4, 5, 6, (5, 6, 7), 99, 12, 1.1, 77, 23, 88}

>>> b.pop()

1

>>> a

{1, 2, 3}

>>> a

{1, 2, 3}

>>> a.clear()

>>> a

set()

>>> q={'a','s','d','f'}

>>> q

{'s', 'a', 'd', 'f'}

>>> w=b|q

>>> w

{(5, 6, 7), 99, 5, 6, 12, 1.1, 77, 's', 'a', 23, 88, 'd', 'f'}

>>> r=b.union(q)

>>> r

{(5, 6, 7), 99, 5, 6, 12, 1.1, 77, 's', 'a', 23, 88, 'd', 'f'}

>>> z={99,1.1,12,34,45,56,'a','s','q'}

>>> print(b&z)

{99, 12, 1.1}

>>> print(z&b)

{99, 12, 1.1}

>>> print(b.intersection(z))

{99, 12, 1.1}

>>> print(b-z)

{(5, 6, 7), 5, 6, 77, 23, 88}

>>> print(z-b)

{34, 45, 's', 'a', 56, 'q'}

>>> print(b.difference(z))

{(5, 6, 7), 5, 6, 77, 23, 88}

>>> print(b^z)

{34, (5, 6, 7), 5, 6, 88, 45, 77, 'a', 's', 23, 56, 'q'}

>>> print(z^b)

{34, (5, 6, 7), 5, 6, 77, 45, 'a', 's', 23, 88, 56, 'q'}

>>> print(z.symmetric\_difference(b))

{34, (5, 6, 7), 5, 6, 77, 45, 'a', 's', 23, 88, 56, 'q'}

>>> gf.isdisjoint(b)

True

>>> b.issubset(w)

True

>>> w.issuperset(b)

True

>>> y={9,787,567,3,5}

>>> sorted(y)

[3, 5, 9, 567, 787]

>>> y

{3, 5, 9, 787, 567}

>>> sum(y)

1371

>>> max(y)

787

>>> min(y)

3

>>> len(b)

9

>>> enumerate(b)

<enumerate object at 0x02E1F080>

>>> all(y)

True

>>> any(y)

True