In [2]:
```
int(2.4)
```

Out[2]:
```
2
```

In [4]:
```
int(True)
```

Out[4]:
```
1
```

In [3]:
```
int('10')
```

Out[3]:
```
10
```

In [4]:
```
#int('ten') string with text is not converted into integer
```

In [6]:
```
#int(2+3j) complex no. is not converted in to integer
```

In [12]:
```
print(float(10))
print(float(False))
print(float(True))
print(float('20'))
#print(float('twenty'))-->> string  with text is not converted to float
#print(float(3+4j))-->> complex number is not converted  to float
print(float(True) + float(False))
print(float(False) + float(False))
```

```
10.0
0.0
1.0
20.0
1.0
0.0
```

In [25]:
```
print(complex(10))
print(complex(-10))
print(complex(25,20))
print(complex(0))
print(complex('5'))# complex take only one string argoment
#print(complex('4','6')) -->>two string argument is not passed in the complex numbe
print(complex(2.5))
print(complex(5.8,7.9))
print(complex(0.0))
print(complex('67'))
#print(complex('partha'))-->>string with text is not converted to complex number
print(complex(True))
print(complex(False))
print(complex(True+False))
```

```
(10+0j)
(-10+0j)
(25+20j)
0j
(5+0j)
(2.5+0j)
(5.8+7.9j)
0j
(67+0j)
(1+0j)
0j
(1+0j)
```

In [30]:

```
print(str(10))
print(str('3'))
print(str('gudu'))
print(str(4.5))
print(str(3+5j))
print(str(True))
print(str(10+20))
print(str(True+False))
```

```
10
3
gudu
4.5
(3+5j)
True
30
1
```

In [33]:

```
print(bool(10))
print(bool('3'))
print(bool('gudu'))
print(bool(4.5))
print(bool(3+5j))
print(bool(True))
print(bool(10+20))
print(bool(True+False))
print(bool())
# in bool type you put any value in the ( ) give --true if the ( ) is empty then gi
```

```
True
True
True
True
True
True
True
True
False
```

In [41]:

```
#1var=2 -->> identifier can not start with digit
```

In [45]:

```
#var56@=45-->> identifier can not have any special cheracter
#import = 23--> import keyword cannot use as identyfier
```

In [53]:

```
p = 34
q =34
p = q
print(f'the value of p is {p}')
print(f'the type of p is {type(p)}')
print(f'the memory laocation is p is {hex(id(p))}')
print(f'the value of q is {q}')
print(f'the type odf q is {type(q)}')
print(f'the memory location of q is{hex(id(q))}')
```

```
the value of p is 34
the type of p is <class 'int'>
the memory laocation is p is 0x7ffb2b6bb7c8
the value of q is 34
the type odf q is <class 'int'>
the memory location of q is0x7ffb2b6bb7c8
```

In [55]:

```
#variable assignment
intvar = 12
floatvar = 3.4
strvar = 'partha'
print(intvar)
print(floatvar)
print(strvar)
```

```
12
3.4
partha
```

In [57]:

```
intvar,floatvar,strvar = 10,3.4,'partha'
print(intvar)
print(floatvar)
print(strvar)
```

```
10
3.4
partha
```

In [60]:

```
p1=p2=p3 = 44
print(p1)
print(p2)
print(p3)
```

```
44
44
44
```

In [2]:

```
number = 10
print(type(number))
print(sys.getsizeof(number))
print(number,'is integer?',isinstance(number,int))
```

```
<class 'int'>
28
10 is integer? True
```

In [9]:

```
pen = 4.5
print(pen)
print(type(pen))
print(sys.getsizeof(pen))
```

```
4.5
<class 'float'>
24
```

In [ ]:

```

```

In [7]:

```
val2 = 92.78 # Float data type
print(val2)
print(type(val2)) # type of object
print(sys.getsizeof(val2)) # size of float object in bytes
(val2, " is float?", isinstance(float, val2))
```

```
92.78
<class 'float'>
24
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[7], line 5
      3 print(type(val2)) # type of object
      4 print(sys.getsizeof(val2)) # size of float object in bytes
----> 5 (val2, " is float?", isinstance(float, val2))

TypeError: isinstance() arg 2 must be a type, a tuple of types, or a union
```

In [3]:

```
x=10.0
isinstance(x, float)
```

Out[3]:

```
True
```

In [4]:

```
x=10.0
x
```

Out[4]:

```
10.0
```

In [9]:

```
a = 4.6
(isinstance(a, (float, str)))  # Output: False
```

Out[9]:

```
True
```

In [16]:

```
bin12 = 55.78
print(bin12)
print(type(bin12))
print(sys.getsizeof(bin12))
(bin12,'is int?',isinstance(bin12,int))
```

```
55.78
<class 'float'>
24
```

Out[16]:

```
(55.78, 'is int?', False)
```

```
In [19]: cid = 2+4j
         print(cid)
         print(type(cid))
         print(sys.getsizeof(cid))
         (cid,'is a complex ?',(cid,complex))

        (2+4j)
        <class 'complex'>
        32

Out[19]: ((2+4j), 'is a complex ?', ((2+4j), complex))
```

```
In [21]: print(sys.getsizeof(int()))

        28
```

```
In [23]: print(sys.getsizeof(str()))

        41
```

```
In [25]: print(sys.getsizeof(float()))

        24
```

```
In [27]: print(sys.getsizeof(bool()))

        28
```

```
 In [ ]:
```