

Float Object demo program

a = 10.8

print(a) → o/p: 10.8

print(type(a)) → o/p: <class 'float'>

print(id(a)) → o/p: Address of object 10.8, is printed

b = 25.

print(b) → o/p: 25.0

print(type(b)) → o/p: <class 'float'>

c = -6.89

print(c) → o/p: -0.689

d = 3.4E2

print(d) → 3.4 × 10², o/p: 340.0

print(type(d)) → o/p: <class 'float'>

e = 9.62 e-2 → 9.62 × 10⁻²

print(e) → o/p: 0.0962

print(9.8.2) → Error

Complex object demo Program

a = 3 + 4j

print(a) → o/p: 3+4j

print(type(a)) → o/p: <class 'complex'>

print(id(a)) → Prints Address of ~~float~~ object 3+4j
Complex

print(a.real) → o/p: 3.0

print(a.imag) → o/p: 4.0

print(type(a.real)) → o/p: <class 'float'>

print(type(a.imag)) → o/p: <class 'float'>

Find outputs

a = 6j

print(a)

→ O/p: 6j

print(type(a))

→ O/p: <class 'complex'>

print(a.real)

→ O/p: 0.0

print(a.imag)

→ O/p: 6.0

print(5+j6)

→ Error, because it should be 5+6j

print(3+4i)

→ Error, i is not valid in python

print(4+j)

→ Error, imaginary need to be explicitly mentioned

print(4+1j)

→ O/p: 4+1j

print(4+0j)

→ O/p: 4+0j

Bool object demo programs

a = True → valid

print(a) → O/p: True

PESCE: glo ← (0) f07eq

smo2: glo ← ((0)bi) f07eq

print(type(a)) → O/p: <class 'bool'> is output

print(id(a)) → O/p: Address of bool Object is printed

b = False

→ O/p: False

print(type(b))

→ O/p: <class 'bool'>

print(True + True)

→ O/p: 2

print(True + False)

→ O/p: 1

print(False + True)

→ O/p: 1

print(False + False)

→ O/p: 0

print(True + True + True)

→ O/p: 3

print(25 + 10.8 + True) → O/p: 36.8 ((25+10.8)+1)

print(True > False) → O/p: True

print(True) → O/p: True

print(False) → O/p: False

print(true) → Error ⇒ should be False & True

print(false) → Error

Find Outputs

a = 006247

print(a)

$$\begin{array}{r} 6 \ 2 \ 4 \ 7 \\ 8^3 \ 8^2 \ 8^1 \ 8^0 \\ \rightarrow 512 \times 6 + 64 \times 2 + 8 \times 4 + 7 \times 1 \\ \Rightarrow \cancel{006} \ 3239 \end{array}$$

o/p: ~~006~~ 3239

print(type(a)) → o/p: <class 'int'>
print(id(a)) → prints Address of int object 3239

b = 006247

print(id(b)) → o/p: Same as Address of a

print(b) → o/p: 3239

c = 3239

print(c) → o/p: 3239

print(id(c)) → o/p: Same as Address of a & b

print(009248) → Error (As 9 is not allowed in Octal number)

Find Outputs

a = 0XA789

print(a)

$$\begin{array}{r} A \ 7 \ 8 \ 9 \\ 16^3 \ 16^2 \ 16^1 \ 16^0 \\ \Rightarrow 16^3 \times 10 + 16^2 \times 7 + 16^1 \times 8 + 16^0 \times 9 \\ \Rightarrow 40960 + 1792 + 176 + 9 \\ \Rightarrow 42937 \end{array}$$

o/p = 42937

print(type(a)) → o/p: <class 'int'>

b = 0XBEEF

print(b)

$$\begin{array}{r} B \ E \ E \ F \\ 16^3 \times 11 + 16^2 \times 14 + 16^1 \times 14 + 16^0 \times 15 \\ \Rightarrow 40960 + 3584 + 224 + 15 = 44889 \end{array}$$

o/p: 48,879

print(ATB9) → Error

print('ATB9') → o/p: ATB9

print(0xBEER) → o/p: Error (R is not hexadecimal number)

print(0XHYD) → Error (because of 'H' and 'Y')

print(0XA7G98) → Error (because of 'G')

Find output

a=9248

print(a) → o/p: 9248

print(type(a)) → o/p: <class 'int'>