

float object demo program (Home work)

a = 10.8

print(a) # 10.8

print(type(a)) # <class 'float'>

print(id(a))

b = 25

print(b) # 25.0

print(type(b)) # <class 'float'>

c = .689

print(c) # 0.689

d = 3.4E2 # Mantissa - exponent number:

$$3.4 \times 10^2 = 340.0$$

print(d) # 340.0

print(type(d)) # <class 'float'>

e = 9.62 e⁻² # $9.62 \times 10^{-2} = 0.0962$

print(e) # 0.0962

complex object demo program.

$a = 3 + 4j$ # 'a' is a complex number

(real = 3, imag = 4)

print(a) # $3 + 4j$

print(type(a)) # <class 'complex'>

print(id(a))

print(a.real) # 3.0

print(a.imag) # 4.0

print(type(a.real)) # <class 'float'>

print(type(a.imag)) # <class 'float'>

Find outputs (Home work).

$a = 6j$

print(a) # $6j$

print(type(a)) # <class 'complex'>

print(a.real) # no real part.

print(a.imag) # imaginary part.

print($5 + j6$) # Error $5 + 6j$

print($3 + 4i$) # Error i is not defined
in Python

print($4 + j$) # j is not defined

print($4 + 1j$) # $4 + 1j$

print($4 + 0j$) # $4 + 0j$

bool object demo program

a = True

print(a)

True

print(type(a))

<class 'bool'>

print(id(a))

the true object

b = False

print(b)

false

print(type(b))

<class 'bool'>

print(True + True) = 2

print(True + False) = 1

print(False + True) = 1

print(False + False) = 0

print(True + True + True) = 3

print(25 + 10.8 + True) = 36.8

print(True > False) # True (1 > 0)

print(True)

True

print(False)

False

print(True)

True is not defined

print(False)

False is not defined

Find Outputs

a = 006247 # Error

print(a)

print(type(a))

print(id(a))

b = 006247 # '00' is prefix

print(id(b))

print(b)

c = 3239 # decimal

print(c)

print(id(c))

print(009248) # Error. a and b are not valid.

Find Outputs

a = 0xA7B9 # decimal 42937

print(a) # 42937

print(type(a)) # <class 'int'>

b = 0xBEEF # decimal 48879

print(b) # 48879

print(A7B9) # Error A7B9 is

print('A7B9') # not defined

print(0XBEEF) # Error

print(0xHYA

print(0xA7B

find outputs

a = 0xA7B9

print(a)

print(type(a))

print(0xHYD) # Error

print(0xA769B) # Error

find outputs (Home work)

a = 0xA7B9 # decimal 42937
to variable a.

print(a) # Output: 42937

print(type(a)) # <class 'int'>