1. # float object demo program (Homework)

```
a = 10.8

print(a) #10.8

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

print(id(a)) #some random address assigned by IDE

b = 25.

print(b) #25.0

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

c = .689

print(c) #0.689

d = 3.4E2

print(d) #340.0

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

e = 9.62e-2

print(e) #0.0962

print(9.8.2) #Error #Reason: format / syntax issue. Basically '.' can be replaced by ','
```

2. # complex object demo program

```
a = 3 + 4j

print(a) #3+4j

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

print(id(a)) # Some random address assigned by IDE
```

```
print(a . real) #3.0

print(a . imag) #4.0

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

print(type(a . imag)) #class 'float'
```

3. # Find outputs (Homework)

```
a = 6j

print(a) #6j

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

print(a.real) #0.0

print(a.imag) #6.0

print(5 + j6) #Error #Reason: Improper format, it is correct if it was '5+6j'

print(3 + 4i) #Error #Reason: 'Usage of i' is not allowed or permitted in Python, instead 'j' can be used

print(4+j) #Error #Reason: Imag object is not given or declared

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

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

4. # bool object demo program (Homework)

```
a = True

print(a) #True

print(type(a)) #class 'bool'

print(id(a)) #Some random address assigned by IDE

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

print(True) #True

print(False) #False

print(true) #Error # Reason: lowercase 't' can't be used, instead uppercase 'T' can be used

print(false) #Error # Reason: lowercase 'f' can't be used, instead uppercase 'F' can be used
```

5. Find outputs (Homework)

```
a = 0O6247

print(a) #Decimal equivalent value of 0O6247

print(type(a)) #class ‘int’

print(id(a)) #Some random address assigned by the IDE

b = 0o6247

print(id(b)) #Same random address assigned by the IDE to reference ‘a’

print(b) # Decimal equivalent value of 0o6247

c = 3239
```

print(c) #3239

print(id(c)) #Some random address assigned by the IDE

print(0o9248) '''Error due to presence of 9 and 8 #Reason: Octagonal numbers do contain object or numbers in the range 0 to 7'''

6. Find outputs (Homework)

a = 0XA7B9

print(a) #Decimal equivalent value of 0XA7B9

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

b = 0xBEEF

print(b) #Decimal equivalent value of 0xBEEF

print(A7B9) #Error #Reason is about improper syntax

print('A7B9') #A7B9

print(0XBEER) '''Error due to presence of 'R' #Reason: Hexa-Decimal numbers could include or involve 0-9, A-F, a-f'''

print(0XHYD) '''Error due to presence of 'H' and 'Y' #Reason: Hexa-Decimal numbers could include or involve 0-9, A-F, a-f'''

print(0xA7G9B) '''Error due to presence of 'G' #Reason: Hexa-Decimal numbers could include or involve 0-9, A-F, a-f'''

7. Find outputs (Homework)

a = 9248

print(a) #9248

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