```python
# eval() function demo program.
print(eval('25'))          # 25 (int)
print(eval('10.8'))        # 10.8 (float)
print(eval('False'))       # False (bool)
print(eval('3+4j'))        # (3+4j). (complex)
print(eval('Hyd'))         # 'Hyd'
print(eval("'Hyd'"))       # 'Hyd' (str)
print(eval('3+4*5'))       # 23.
print(eval('[10,20,15,18]'))   # [10,20,15,18] (list)
print(eval('{10,20,15,18,20,12,18}'))
                           # {10,12,15,18,20}
print(eval('10,20,30'))    # (10,20,30) (tuple)
print(eval("{10:'Hyd', 10:'set'}"))
                           # {10:'sec'} (dict)
print(eval(4+5))           # 9
```

```python
# Tricky program
# find outputs (HOME work)
print(eval("'hyd'"))       # 'hyd'
hyd = 'sec'
print(eval('hyd'))         # 'sec'
sec = '25'
print(eval('sec'))         # '25'
print(eval(sec))           # 25
cyb = 10.8
print(eval('cyb'))         # 10.8
print(eval(cyb))           # Error
```

```
# tricky program
# Find out (Home work).
print (eval ('print ("Hyd")'))   # Error.
```

```
# Find outputs (Home work)
print (bool ('False'))   # True
print (eval ('false'))   # False
print (bool (''))   # False
print (eval (''''''))   #   " "
print (eval (''))   # Error
print (eval (' " " '))   #   '     '
print (eval (''))   # Error.
```

```
# what is the advantage of eval (input())?
x = eval (input ('Enter any input: '))   # 25
print (type(x))   < class int >
print (x)   # 25.
```

```
# what is a better approach to read string
a = input ('Enter any string:')   # 'Hello'
print (len (a))   # 4
print (a)   # Hello
b =  eval (input ('Enter any string: '))
print (len(b))
print (b)
```

```
# sep argument demo program (home work)
a,b,c = 25, 10.8, 'Hyd'
print (a,b,c, sep=',')    # 25, 10.8, Hyd
print (a,b,c, sep='\t')   # 25<tab>10.8<tab>Hy
print (a,b,c, sep='---')  # 25---10.8--- Hyd
print(a,b,c, sep='\n')    # 25 .
print (a,b,c)             # 25   10.8 Hyd (default)
print (a,b,c), separator = ';')  # Error
```

```
# Find outputs (Home works)
a=b,c=25, 10.8, 'Hyd'
print (a,b,c, end='...')   # 25 10.8 Hyd ...
print (a,b,c, sep=',,,')   # 25,,, 10.8,,, Hyd \n
print(a,b,c, sep'...', end='\t\t\t')  # 25:::. 10.8::: Hyd
print(a,b,c)   # 2510.8 Hyd
```

```
Find outputs. (Home work)
print('Hyd')      # Hyd *
print()
print('sec')      # *sec *
print()
print('cyb')      # cyb *
```

```
# Find outputs (Home work)
l = [10,20, 30,40]
t = (10,20, 30,40)
s = {10, 20, 30, 40}
```

```
print (l, t, s)
# [10, 20, 30, 40] ( 10, 20, 30, 40) {10, 20, 30, 40}
```

```
# find outputs (Home work)
a = 25
b = '%f' % a
print(type(b))     # 25.000000
print (type(b))    # < class 'str'>
x = 10.8
y = '%d' % x
print (y)          # 10
print (type(y))    # < class 'str'>
m = [10, 20, 15, 18]
n = '%s' % m
print (n)          # [10, 20, 15, 18]
print. (type(n))   # < class 'str'>
```

```
# find outputs ( Home work)
a = 10.9274
print ('%8.2f' % a)    # <3 spaces> 10.93
print ('%9.1f' % a)    # <5spaces> 10.9
print ('%10.3f' % a)   # <4 spaces> 10.927
print ('%2f' % a)      # 10.3
print ('%6f' % a)      # 10.927400
print ('%f' % a)       # 109 27 400
```

Find a Outputs (Home work)

```
a = 'Hyd'
print('%7s' %a)      # <4 spaces>Hyd
print('%-7s' %a)     # Hyd<4 spaces>
print('%2s' %a)      # Hyd and ignores smaller width
print('%s' %a)       # Hyd
print('%s', a)       # %s Hyd
print('%s', a)       # Error
print('%s', %a)      # Error
print(a)             # Hyd.
```

Find Outpus (Home work)

```
a = [10, 20, 30, 40]
print('%s' %a)       # [10, 20, 30, 40]
print('%s', a)       # %s [10, 20, 30, 40]
print('%s' a)        # Error
print('%s', %a)      # Error
print('%l' %a)       # Error
print(a)             # [10, 20, 30, 40]
```

Find Outputs (Home work)

```
a = 25
b = 10.9274
c = 'Hyd'
print('%d %f %s' %(a,b,c))            # 25  10.927400 Hyd
print('%i  %g %s' %(a,b,c))           # 25, 10.9274 Hyd
print('%s %s %s' %(a,b,c))            # 25 10.9274 Hyd
print('%d %g %s', a,b,c)              # %d %g % 25 10.9274 Hyd
print('%a %g %s' a,b,c)               # Error.
print('%d %g %s', %(a,b,c))           # Error.
print('%d %g %s'  %a% b% c)           # Error
print('%d' %a, '%f' %b, '%s' %c)
                                      # 25  10.927400  Hyd
```