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Find Outputs (Home work)

```
a = "Rama Rao"
print(a)  # output: Rama Rao
print(type(a))  # output: <class 'str'>
print(id(a))  # some integer, varies each time
b = 'Hyd'
print(b)  # output : Hyd
c = """Hyd is green city.
Hyd is hitec city.
Hyd is beautiful city."""
print(c)
```

Index demo program (Home work)

```
a = 'Hyd'  # string assigned to variable a
print(a[0])  # H.
print(a[1])  # y
print(a[2])  # d
print(a[3])  # Error string index out of range
print(a[-1])  # d.
print(a[-2])  # y
print(a[-3])  # H
print(a[0] == a[-3])  # True (both are "H").
a[2] = 'c'  # Error. 'str' object does not
            support item assignment
```

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```
print ('25'[0])    # output: 2
print (True[1])    # Error 'bool' object is not
                     subscriptable
print ('True'[1])  # output: r
```

```
# Find outputs (Home work)
a = 'Hyd' # string assigned to variable 'a'
print (a*3) # HydHydHyd
print (a*2) # HydHyd
print (a*1) # Hyd
print (a*0) # ''
print (a*-1) # ''
print (25*3) # 75
print ('25'*3) # 252525
print ('25'*4.0) # Error 'TypeError'
print (3*'Hyd') # HydHydHyd
print ('25'*True) # 25
```

```
# Find outputs (Home work).
a = 'Hyd' # Assigning a string to variable 'a'.
print (a, id(a)) # Hyd.
a = a*3 # Repeating the string 3 times and
          reassigning it to 'a'.
print (a, id(a)) # a = 'HydHydHyd'
                 # HydHydHyd.
```

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len() function (Home work)

```
print(len('Hyd'))      # 3
print(len('RamaRao'))  # 8
print(len('9247'))     # 4
print(len(""))         # 0
print(len(' '))        # 1
print(len(689))  Error object of type 'int' has no len()
```

Find Outputs (Home work)

```
a = """ Hyd """
print(a)  # 3(H,y,d)
print(a)  # Hyd
print(len(a))  # 3(H,y,d)
print(a[0])  # H
print("""Hyd""")  # Hyd.
b = """ Hyd """
print(b)  # Hyd
print(len(b))  # 3.
```

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```
# Find outputs.
a = 'sankar Daya sarma'  # string length is 18
Print (a [7:12])  # Daya!
Print (a [7:])  # Daya! sarma
Print (a[:6])  # sankar
Print (a[:])  # sankar Daya! sarma
Print (a[::])  # sankar Daya! sarma
Print (a[1:10:2])  # aka a
Print (a[ 0:: 2])  # snkrDylsrm
Print (a[1::2])  # aak aa aa
Print (a[-5:-1])  # sarm
Print (a[::-1])  #amras lay aD rakhas
print (a[-1:-5:-1])  # amra
Print (a[::-2])  #arslyDrka
Print (a[3:-3])  # kar Daya! sa
print (a[2:-5])  # nkar Daya!s
Print (a[-1:-5])  # empty string
Print (a[3:3])  # empty string
```

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find outputs (Home work)

```
a = 'A'  # A string with only 1 character
print(a[1]) # Index Error (string index out of range)
print(a[1:]) # "empty string" because index is beyond the string length
```

int() function demo program

```
print(int(10.8)) # converts float object 10.8 to int object 10
print(int(True)) # converts bool object True to int object 1.
print(int(False)) # converts bool object False to int object 0.

print(int('25')) # string with valid int 25
print(int('0075')) # leading zero ignored in string 75
print(int(0B11010)) # Binary 11010 is 26 in decimal 26
print(0B11010) # Binary literal directly 26
Pint(int(0o6247)) # octal 6247 is 3239 in decimal 3239
print(0o6247) # otal literal directly 3239
Print(int(0xA7B9) # hexa A7B9 is 42937 in decimal
print(0xA7B9) # hexa literal directly 42937
```

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```
# float() function demo program
print(float(25)) # converts int object 25 to
                   float object 25.0
print(float(True)) # converts bool object True
                   to float object 1.0
print(float(False)) # converts boolean False
                   to float object 0.0
print(float('92')) # converts numeric string to
                   float object 92.0
print(float('36.4')) # converts valid float string
                   36.4
print(float('0075')) # leading zeros allowed
                   in string 75.0
print(float(0B1010101)) # Binary literal prefix
                   0B, 85.0 Decimal
print(float(0062471)) # Error.
print(float(0XA7B9)) # Hexdecimal literal
                   decimal- 42937 and 42937.0
print(float(3+4j)) # **Type Error**
print(float('Ten')) # **value Error**
```

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complex() function demo program

```
print(complex(3,4))  # (3+4j)
print(complex(0,4))  # 4j
print(complex(3))    # 3+0j
print(complex(3.8, 4.6))  # 3.8+4.6j
print(complex(3.8))  # 3.8+0j
print(complex(3, 4.5))  # 3+4.5j
print(complex(True, False))  # 1+0j
print(complex(True))  # 1+0j
print(complex(False))  # 0j
print(complex(True, 4))  # 1+4j
print(complex('3'))  # (3+0j)
print(complex('3.8'))  # (3.8+0j)
print(complex(3, '4'))  # TypeError: imag must be a number
print(complex('3', 4))  # TypeError: can't mix str and int
print(complex('3', '4'))  # TypeError: can't mix str and str
print(complex('ten'))  # ValueError: invalid literal
```

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```
# bool() function demo program.
print(bool(0)) # False
print(bool(10)) # True: 10 is non-zero
print(bool(-25)) # True
print(bool(0.0)) # False
print(bool(0.1)) # True
print(bool(0+0j)) # False
print(bool(10+20j)) # True
print(bool(-15j)) # True
print(bool('False')) # True
print(bool('')) # False
print(bool('Hyd')) # True
print(bool(' ')) # True
print('True') # True
```

```
# str() function demo program.
print(str(25)) # converts 25 to '25'
print(str(10.8)) # '10.8'
print(str(3+4j)) # '(3+4j)'
print(str(True)) # 'True'
print(str(False)) # 'False'
print(str(None)) # 'None'
```

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```
# oct() function demo program
print (oct (195))    # '0o303'
print (oct (0b101011100101)) # '0o2652'
print (oct (0xA7B9)) # '0o123671'.

# hex() function demo program
print (hex (25))    # '0x19'
print (hex (0b1010111101011111)) # '0x15d7'
print (hex (0o6247)) # '0xca7'
```