

# Lecture 2 : Introduction to Python Practice Questions

## 1-Tut : **Output Question**

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What will the following code segment print?

```
print("Career")
```

```
print("Labs")
```

### Options

CareerLabs

Career Labs

Career Labs(in next line)

"Career""Labs"

**Correct Answer : C**

## 2-Tut : **Output Question**

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What will be the output of the given code segment?

```
a = 10
```

```
b = 20
```

```
multiple = a*b
```

```
print("multiple")
```

### Options

20

200

multiple

None of the above

**Correct Answer C**

## 3-Tut : **Output Question**

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What will be the output of the given code segment?

```
a = 10
```

```
b = 20
```

```
multiple = a*b
```

```
print(multiple)
```

## Options

20  
200  
multiple  
None of the above

Correct Answer: B

## 4-Tut : Python Variable Name

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Select correct variable name(s) -

One or more options may be correct

## Options

var1  
var\_1  
1var  
\_var1

Correct Answer: A,B,D

## 5-Tut : Python Variables

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What will be the result of the following code in Python ?

```
x = 10  
x = "abcd"  
print(x)
```

## Options

10  
abcd  
Error

Correct Answer B

Note : variables are not same as in c++/ Java etc.. , in python x will store the address of the variable where 10 is stored , also in cpp/java we can;t update the variable to another data type but in python we can , now x will store the address of variable where “abcd” is stored.

## 6-Tut : Python Variable Types

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Consider the python code below -

```
x = "abcd"  
x = 10
```

What is the type of x after the code executes ?

### Options

str

int

Correct Answer B

### 7-Tut : Check for Equality

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Will id1 and id2 have the same value?

```
a = 10
```

```
id1 = id(a)
```

```
b = a + 2-2
```

```
id2 = id(b)
```

### Options

Yes

No

Can't say

Correct Answer : Yes

Note :For Numbers in range [-5,256] python does the auto optimisation : (no new space for same value,

Ex : a = 10, b = 10 : both a and b will contain the same address( & of variable where 10 is stored)

Also in case of updates like a = a+1; (in python id will be changed to new id where 11 is stored, but in case of c++/ java etc.. same variable with updated value)

Limit of integer, Arithmetic operators

Note : in python there is no limit bcz here declaring variable is not allocated space also here variable stores the address of the "content variable".

### 8-Tut : Output Question

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What will be the output of the following statement?

```
print(17//10)
```

### Options

1.7

1

2

None of the above

Correct Answer : B

### 9-Tut : Output Question

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What will be the output of the following statement?

```
print(17/10)
```

### Options

1.7

1

2

None of the above

**Correct Answer : A**

Taking Inputs :

### 10-Tut : Output Question

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What will be the output of the code if the input provided is 40 and 57 ?

```
a = input()
```

```
b = input()
```

```
C = a+b
```

```
print(C)
```

Note that the double quotes given in the options is to denote that it is a string. It wouldn't appear in the final output.

### Options

97

"40+57"

"4057"

None of the above

**Correct Answer : C**

### 11-Tut : Output Question

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What will be the output of the code if input provided is 40 and 57 ?

```
a=int(input())
```

```
b= int(input())
```

```
C = a+b
```

```
print(C)
```

### Options

97

"40+57"

"4057"

None of the above

Correct Answer : A

### 12-Tut : **Output Question**

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**What will be the output of the code if input provided is “abc” and “def”?**

```
a = int(input())
```

```
b=int(input())
```

```
C = a+b
```

```
print(C)
```

### **Options**

abcdef

abc+def

Value Error

None of the above

Correct Answer : C

### 13-Tut : **Find average Marks**

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Write a program to input marks of three tests of a student (all integers). Then calculate and print the average of all test marks.

#### **Input format :**

3 Test marks (in different lines)

#### **Output format :**

Average

#### **Sample Input 1 :**

3

4

6

**Sample Output 1 :** 4.333333333333333

#### **Sample Input 2 :**

5

10

5

**Sample Output 2 :** 6.666666666666667

#### **CODE :**

1. `a = int(input())`
2. `b = int(input())`
3. `c = int(input())`
4. `print((a+b+c)/3)`

### 14-Ass : Find X raised to power N

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You are given two integers: X and N. You have to calculate X raised to power N and print it.

#### Input format:

The first line of input contains an integer X ( $1 \leq X \leq 100$ )

The second line of input contains an integer N ( $1 \leq N \leq 10$ )

#### Constraints:

Time Limit: 1 second

#### Output format:

The first and only line of output contains the result.

#### Sample Input:

10

4

**Sample Output:** 10000

1. [# Write your code here](#)
2. [X = int\(input\(\)\)](#)
3. [N = int\(input\(\)\)](#)
4. [print\(X\\*\\*N\)](#)
5.

### 15-Ass: Arithmetic Progression

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You are given the first three entries of an arithmetic progression. You have to calculate the common difference and print it.

#### Input format:

The first line of input contains an integer a ( $1 \leq a \leq 100$ )

The second line of input contains an integer b ( $1 \leq b \leq 100$ )

The third line of input contains an integer c ( $1 \leq c \leq 100$ )

#### Constraints:

Time Limit: 1 second

#### Output format:

The first and only line of output contains the result.

#### Sample Input:

1

3

5

**Sample Output:** 2

1. [# Write your code here](#)
2. [a = int\(input\(\)\)](#)
3. [b = int\(input\(\)\)](#)
4. [c = int\(input\(\)\)](#)
5. [print\(c-b\)](#)

### 16-Ass: Rectangular Area

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You are given a rectangle in a plane. The coordinates of one of its diagonals are provided to you. You have to print the total area of the rectangle.

**The coordinates of the rectangle are provided as four integral values:  $x_1$ ,  $y_1$ ,  $x_2$ ,  $y_2$ . It is given that  $x_1 < x_2$  and  $y_1 < y_2$ .**

**Input format:**

The first line of input contains an integer  $x_1$

The second line of input contains an integer  $y_1$

The third line of input contains an integer  $x_2$

The fourth line of input contains an integer  $y_2$

**Constraints:**

$1 \leq x_1 \leq 10$

$1 \leq y_1 \leq 10$

$1 \leq x_2 \leq 10$

$1 \leq y_2 \leq 10$

Time Limit: 1 second

**Output format:**

The first and only line of output contains the result.

**Sample Input:**

```
1
1
3
3
```

**Sample Output:** 4

**Explanation:**

The given coordinates of the diagonal are  $(x_1, y_1) = (1, 1)$  and  $(x_2, y_2) = (3, 3)$ .

The area of the rectangle can then easily be calculated as:

$$(3 - 1) * (3 - 1) = 2 * 2 = 4$$

1. **# Write your code here**
2.  **$x_1 = \text{int}(\text{input}())$**
3.  **$y_1 = \text{int}(\text{input}())$**
4.  **$x_2 = \text{int}(\text{input}())$**
5.  **$y_2 = \text{int}(\text{input}())$**
6.  **$\text{print}((x_2 - x_1) * (y_2 - y_1))$**
- 7.