Evaluation of Expressions in Python

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- **DO NOT open this booklet until you are instructed to do so.**
- **DO NOT make any marks in this booklet.**
- **MARK your answers on the separate answer sheet.**

DIRECTIONS

This test consists of 30 questions designed to see how well you can evaluate expressions in Python. Shown below is a type of question included.

After executing the following code:

```
x = 4 - 2 * 7
```

the value of `x` **will be:**

A	B	C	D	E
9	42	14	-10	18

You are to:

1. study the expression in the top part of the page;
2. mentally evaluate the expression to the best of your abilities, trying to determine the value of the outcome variable;
3. select from among the five answers available (A, B, C, D or E) given in the bottom line of the question the one which seems to be correct.

What is the correct answer to the example shown above?

Answers A, B, C and E are wrong. Only answer D will have the correct answer given the expression evaluated. Remember that each question has only one correct answer.

Now look at the next example shown below and try to select the answer that is correct for the code which is executed.

After executing the following code:

```
a = 2
l = [0, 5, 2, 3]
x = a * l[a] + l[1]
```

the value of `x` **will be:**

A	B	C	D	E
4	9	14	8	6

Notice that this expression is more complex. The correct answer for this example is B.

- **DO NOT make any marks in this booklet.**
- **MARK your answers on the separate answer sheet.**
- **You will be told when to begin.**

1

After executing the following code:

```
x = 2 * 5 + 7
```

the value of `x` **will be:**

A	B	C	D	E
17	24	14	12	18

2

After executing the following code:

```
a = 4
x = 1 + 3 * a - 2
```

the value of `x` **will be:**

A	B	C	D	E
11	7	14	10	13

3

After executing the following code:

```
a = 12
b = 3
x = a - 10 + 2 * b
```

the value of `x` **will be:**

A	B	C	D	E
-24	8	7	9	14

4

After executing the following code:

```
a = 4
b = 9
c = 3
x = str(a * b) * c
```

the value of `x` **will be:**

A	B	C	D	E
`"636363"`	`"36363636"`	`"108"`	`"36"`	`"363636"`

5

After executing the following code:

```
a = 3
b = 3
c = 1
x = a * 3 + 7 - 5 + b - c
```

the value of `x` **will be:**

A	B	C	D	E
17	13	27	23	21

6

After executing the following code:

```
f = 16
g = 4
x = 2 * f + (g * 2 - 6) - 2
```

the value of `x` **will be:**

A	B	C	D	E
32	72	36	64	-216

7

After executing the following code:

```
z = 8
f = 4
a = 3
b = 1
x = b + a - f * b - z + b - a * a
```

the value of `x` **will be:**

A	B	C	D	E
-16	-14	-18	19	-2

8

After executing the following code:

```
l = [1, 7, 9, 4, 3, 6, 1, 0]
x = l[3] + l[1] - l[4]
```

the value of `x` **will be:**

A	B	C	D	E
8	6	1	9	7

9

After executing the following code:

```
myDict = {
    "name": 32,
    "unit": 47,
    "pos": "recorded"
}
a = 10
b = 9
x = myDict["unit"] - b + a
```

the value of `x` **will be:**

A	B	C	D	E
33	28	48	47	14

10

After executing the following code:

```
s = "optimistic"
a = 2
b = 3
x = s[b * 4 - 9:-a]
```

the value of `x` **will be:**

A	B	C	D	E
`"imist"`	`"mist"`	`"ist"`	`"mis"`	`"isti"`

11

After executing the following code:

```
s = "extraordinary"
d = 2
m = 8
x = (s * d)[m:-m]
```

the value of `x` **will be:**

A	B	C	D	E
`"inaryextr"`	`"naryextra"`	`"inaryextra"`	`"inary"`	`"naryextr"`

12

After executing the following code:

```
s = "magnitude"
pos1 = 7
pos2 = 3
p = [3, 5, 6, 2, 3, 4, 1]
x = s[pos2:pos1] + s[p[-pos2]]
```

the value of `x` **will be:**

A	B	C	D	E
`"nitudi"`	`"nitun"`	`"nitui"`	`"gnitn"`	`"nitudn"`

13

After executing the following code:

```
def f(a, b, c):
    return a + c - b
x = f(9, 4, 3) - f(4, 4, 3) + f(3, 5, 6)
```

the value of `x` **will be:**

A	B	C	D	E
-6	14	6	9	-3

14

After executing the following code:

```
k = [7, 6, 8, 12, 3]
a = 1
b = 3
c = 5
x = k[b] - k[a] + c * 6
```

the value of `x` **will be:**

A	B	C	D	E
34	30	36	5	42

15

After executing the following code:

```
d = {"x": "y", "z": "w", "u": "t"}
x = d["z"] + "w" + d["u"] + "x" * 2
```

the value of `x` **will be:**

A	B	C	D	E
`"zwux"`	`"wwtx"`	`"wwtxwwtx"`	`"wwtxx"`	`"wwtxtx"`

16

After executing the following code:

```
myS = "extraordinary fruit"
pos = 7
x = myS[pos – 6] + myS[-(pos - 1)]
```

the value of `x` **will be:**

A	B	C	D	E
`"tr"`	`"x "`	`"xr`	`"t "`	`"xd"`

17

After executing the following code:

```
i = 5
f = [2, 9, 6, 2, 3, 5, 1]
x = f[i + 2 - f[4]:i + f[0]]
```

the value of `x` **will be:**

A	B	C	D	E
`[6, 2, 3, 5]`	`[5, 1]`	`[3, 5, 1]`	`[2, 3, 5, 1]`	`[2, 3, 5]`

18

After executing the following code:

```
def f(pos, l):
    return l[pos] + 3
p = [4, 8, 2, 9]
g = [4, 8, 0, 2, 2, 4, 3]
a = 2
x = f(2, p) + f(g[a], g)
```

the value of `x` **will be:**

A	B	C	D	E
8	14	16	10	12

19

After executing the following code:

```
a = [1, 7, 3, 4]
b = [7, 3, 2, 4]
c = 2
d = 3
x = a[c] + b[c * 2 - (d - c)]
```

the value of `x` **will be:**

A	B	C	D	E
11	7	10	8	9

20

After executing the following code:

```
l = [1, 4, [5, 1, 0], [9, 3, 5]]
z = "board"
a = 0
x = z[l[a]:l[3][1]]
```

the value of `x` **will be:**

A	B	C	D	E
`"oar"`	`"ard"`	`"oa"`	`"boa"`	`"o"`

21

After executing the following code:

```
myS = "natural"
myVar = 5
myPos = 7
x = myS[myPos - myVar] + myS[:myVar] + myS[-myVar]
```

the value of `x` **will be:**

A	B	C	D	E
`"anaturt"`	`"anaturt"`	`"tnatut"`	`"tnaturt"`	`"anatura"`

22

After executing the following code:

```
myS = "10 apples and 17 oranges"
pos1 = 3
x = myS[int(myS[:pos1 – 1])] + myS[-pos1:-1]
```

the value of `x` **will be:**

A	B	C	D	E
`"pg"`	`"aes"`	`"0g"`	`"ag"`	`"age"`

23

After executing the following code:

```
d = {"loc": 2, "pos": "free", "wer": True}
loc = "pos"
x = d[loc] + str(d["loc"]) * 3
```

the value of `x` **will be:**

A

`"free6"`

B

`"free222"`

C

`"2freefreefree"`

D

`"freeloclocloc"`

E

`"locfreefreefree"`

24

After executing the following code:

```
def f(s, n):
    return n * 2 + s + n *2
a = ["peach", "apple", "orange"]
s = "jj"
x = f(a[1], s)
```

the value of `x` **will be:**

A

`"applejjapple"`

B

`"jjapplejj"`

C

`"jjjjapplejjjj"`

D

`"jjjjorangejjjj"`

E

`"appleapplejjappleapple"`

25

After executing the following code:

```
towns = [
    {"name": "Glasgow", "pop": 750},
    {"name": "Aberdeen", "pop": 300},
    {"name": "Edinburgh", "pop": 400},
    {"name": "Dundee", "pop": 200}
]
people = [
    {"name": "Fred", "town": towns[0]},
    {"name": "Alice", "town": towns[1]}
]
a = 6
x = people[a – 6]["town"]["name"] + str(towns[0]["pop"])
```

the value of `x` **will be:**

A `"Glasgow300"`

B `"Aberdeen750"`

C `"Aberdeen300"`

D `"Fred750"`

E `"Glasgow750"`

26

After executing the following code:

```
listA = [[1, 7, 2], [4, 5, 9, 7], [3, 2, 6, 4], [1, 4, 9]]
listB = [7, 4, 9, 1, 10, 12, 16, 3]
a = 2
x = listA[listB[5] - listB[4]][-a - 1]
```

the value of `x` **will be:**

A	B	C	D	E
4	6	2	9	1

27

After executing the following code:

```
a = [[5, 6, 5], [1, 7, 3], [9, 4, 6]]
b = [1, 0, 3, 2, 0, 4, 3, 3, 2, 4]
c = 7
x = a[b[1]][b[3]] * c + b[a[2][1]]
```

the value of `x` **will be:**

A	B	C	D	E
35	39	38	21	29

28

After executing the following code:

```
d = {"n": 0, "p": 6, "z": 3, "r": 3, "e": 2}
s = "never"
x = str(d[s[1]]) + s[d[s[0]]:d[s[4]]]
```

the value of `x` **will be:**

A	B	C	D	E
`"0eve"`	`"2neve"`	`"2ne"`	`"0nev"`	`"2nev"`

29

After executing the following code:

```
d = {"name": "expectation", "type": 14, "n": 8}
z = 7
s = "before"
x = d["name"][2:-3] + str(d["type"]) + str(d["n"] + z)
```

the value of `x` **will be:**

A **B** **C** **D** **E**

`"pecta1487"` `"pectati1415"` `"pectat1415` `"pectati1487"` `"expectat29"`

30

After executing the following code:

```
s = "complicated"
g = [[0, 1], [1, 7], [10, 11]]
def f(x, y, z):
    return x + y + z
x = f(s[g[0][0]], s[g[1][1]:g[1][1]+3], "r")
```

the value of `x` **will be:**

A	B	C	D	E
`"cater"`	`"catedr"`	`"catr"`	`"oatedr"`	`"oater"`

Thank you very much!