

Quiz 01 — Types, Expressions & Booleans [SOLUTION]

Scope: Lectures 1–4 only · Time: 10 minutes · Marks: 10

Name: _____

Roll no: _____

Section: A

Date: Sept 15, 2026

Q1 Evaluate

[3 marks]

Write the **value** each expression evaluates to. ($\frac{1}{2}$ mark each)

(a) `9 // 2` 4

(d) `len("python")` 6

(b) `9 % 2` 1

(e) `int(4.8)` 4

(c) `"ha" * 3` "hahaha"

(f) `3 + 2 == 5` True

Q2 Trace

[3 marks]

What does this program print? Write the **exact** output, one line per box line. (1 mark per line)

```
1 price = 100
2 total = price * 2
3 price = 50
4 print(total)
5 word = "grape"
6 print(word[0] + word[-1])
7 print(f"{len(word)} letters")
```

200

ge

5 letters

Q3 Fill the blank

[2 marks]

Complete the program so that when the user types 6 it prints exactly Area is 36. (1 mark each)

```
1 side = ____ (a) ____ (input("Side: "))
2 print(f"Area is ____ (b) ____")
```

(a) int

(b) {side * side}

Q4 Fix the bug**[2 marks]**

This program should print True when x is **outside** the range 1 to 10 — but it prints False. It has **one bug**. Circle the buggy line, then write the corrected line below. (1 + 1 marks)

```
1 x = 25
2 outside = x < 1 and x > 10
3 print(outside)
```

Buggy line: **2** Corrected line: outside = x < 1 or x > 10

Quiz 01 — Types, Expressions & Booleans [SOLUTION]

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Q1 True or false

[2 marks]

Circle **T** or **F** for each statement. ($\frac{1}{2}$ mark each)

(a) `input()` always gives back a value of type `str`.

☒ T / ☐ F

(b) `"Apple" == "apple"` evaluates to `True`.

☐ T / ☒ F

(c) A string such as `"Hello"` is a **scalar** object.

☐ T / ☒ F

(d) `bool("")` evaluates to `False`.

☒ T / ☐ F

Q2 Boolean values

[2 marks]

Let `a = 8` and `b = 3`. Write `True` or `False` for each expression. ($\frac{1}{2}$ mark each)

(a) `a > b` and `b > 5` False

(c) `a % b == 2` True

(b) `not (a == b)` True

(d) `b > a` or `a >= 8` True

Q3 Trace

[3 marks]

The user types 3 and presses Enter. Write the **exact** output, one line per box line. (1 mark per line)

```
1 n = input("Enter: ")
2 print(n * 2)
3 print(int(n) * 2)
4 word = "abcdef"
5 print(word[1:4])
```

33

6

bcd

Q4 Fix the bug**[2 marks]**

This program should print Total: 15, but it crashes with an error. It has **one bug**. Circle the buggy line, then write the corrected line below. (1 + 1 marks)

```
1 count = 15
2 print("Total: " + count)
```

Buggy line: **2** Corrected line: print("Total: " + str(count))

Q5 Concept check**[1 mark]**

`x = 5` and `x == 5` look almost the same. In **one sentence**, state what each one does.

`x = 5` assigns (stores) the value 5 in the name x;

`x == 5` compares x with 5 and gives True or False.