Quiz 03-11: String, If-Statement, and For-Loop

Name: _____ Date: _____

Instructions

- Answer in the blanks.
- For “write code” questions, write valid Python code.
- For “what does it print” questions, write the exact output.
- You may use `for _ in range(100):` + `break` to “repeat until done”.

Part A — Strings and Lists

1) String or not?

For each one, write **string** or **not a string**.

1. `a = "7"` → _____
2. `b = 7` → _____
3. `c = " "` → _____
4. `d = ""` → _____

2) What does it print? (concatenation)

```
first = "Blue"
second = "Berry"

print(first + second)
print(first + " " + second)
```

Output:

```
_____
_____
```

3) Index and slice practice

Let:

```
s = "pineapple"
```

Fill in the blanks:

1. `s[0]` is `_____`
2. `s[4:9]` is `_____`
3. `s[:4]` is `_____`
4. `s[4:]` is `_____`

---

4) Fix the TypeError (string + number)

This code has an error:

```
age = 9
print("Age: " + age)
```

Rewrite the last line so it works:

```
_____________________________________
```

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5) List operations: what are the final values?

```
pets = ["cat", "dog"]
pets.append("fish")
pets[1] = "hamster"
x = pets.pop(0)
```

1. `x` is: _____
2. `pets` is now: _____

---

6) Write code: swap first and last items (in-place)

Goal: Change `nums = [10, 20, 30, 40]` into `[40, 20, 30, 10]`.

Rules:

- Do **not** make a new list.
- Use a temporary variable.

Your code:

```
nums = [10, 20, 30, 40]

# your code here




print(nums)
```

Expected output:

```
[40, 20, 30, 10]
```

Part B — If Statements and Boolean Logic

7) True or False (and / or / not)

Write `True` or `False` for each expression.

1. `(5 > 2) and (3 == 3)` → _____
2. `(5 > 2) and (3 == 4)` → _____
3. `(not (2 < 1)) or (4 == 5)` → _____
4. `(7 != 7) or (10 >= 10)` → _____

---

8) Fill in the operator

Choose from: `<` , `>` , `==` , `!=` , `<=` , `>=`

1. `8 ____ 6` is `True`
2. `"hi" ____ "hi"` is `True`
3. `3 ____ 3` is `False`
4. `4 ____ 9` is `True`

---

9) What does it print?

```
x = 12
if x % 3 == 0:
    print("A")
else:
    print("B")
print("Done")
```

Output:

```

```

10) Write code: medal labels (if / elif / else)

Given an integer `score`, print:

- `"gold"` if `score >= 90`
- `"silver"` if `75 <= score < 90`
- `"bronze"` if `60 <= score < 75`
- `"try again"` otherwise

Your code:

```
score = 82

# complete the code
```

What is the output?

```

```

11) Spot the mistake (`=` vs `==`)

This code is broken:

```
n = 5
if n = 5:
    print("yes")
```

Fix the `if` line:

```
_____________________________________
```

12) Write code: stay in or go out

Given:

- `temp` is an integer temperature
- `raining` is a Boolean (`True` or `False`)

Print:

- `"stay in"` if `temp < 40` **or** `raining` is `True`
- otherwise print `"go out"`

Your code:

```
temp = 38
raining = False

# complete the code:
```

What is the output?

```
```

Part C — For-Loops (`range` , list traversal, `break`)

13) What numbers does `range` make?

Write the numbers produced by each range.

1. `list(range(4))` → _____
2. `list(range(3, 12))` → _____
3. `list(range(5, 26, 5))` → _____

14) What does it print?

```
total = 0
for x in range(1, 6):
    total = total + x
print(total)
```

Output:

```

```

15) What does it print? (list traversal)

```
words = ["go", "stop", "go", "go"]
for w in words:
    print(w + "!")
```

Output:

```
_____
_____
_____
_____
```

16) What does it print? (`break`)

```
words = ["go", "go", "stop", "go"]
for w in words:
    if w == "stop":
        break
    print(w)
print("end")
```

Output:

```
____________________
____________________
____________________
```

17) Write code: first even number (search + break)

Goal:

- Print the **first even** number in the list, then stop the loop.
- If there is **no even** number, print `"no even"`.

Your code:

```
nums = [5, 9, 12, 7, 8]

found = False

for x in nums:
    # complete the code:




if ____________________:
    print("no even")
```

Expected output:

```
12
```

18) Write code: build a list of squares (append + range)

Goal: Make `squares` become `[1, 4, 9, 16, 25]`.

Your code:

```
squares = []

for x in range(_______, _______):
    _____________________________

print(squares)
```

Expected output:

```
[1, 4, 9, 16, 25]
```

19) Write code: count how many are > 10

Write code to print how many numbers are **greater than 10**.

```
nums = [4, 12, 8, 20, 11]

count = 0

# complete the code:
for _____________________:









print(count)
```

Expected output:

```
3
```

Part D — Number Problems (`%` and `//`) + Mixed

20) Last digit and "remove last digit"

```
n = 583
last = n % 10
rest = n // 10
```

1. `last` is _____

2. `rest` is _____

21) What does it print? (peel digits)

```
n = 405
for _ in range(10):
    digit = n % 10
    print(digit)
    n = n // 10
    if n == 0:
        break
```

Output:

```
_____________________
_____________________
_____________________
```

22) Complete the code: sum of digits

Complete the code so it prints the **sum of digits** of `n`.

```
n = 7316
s = 0

for _ in range(100):
    _____________________________   # add last digit to s
    _____________________________   # remove last digit from n
    if ____________________________:   # stop when n == 0
        ____________________________

print(s)
```

23) Write code: print all factors of 24

Print all factors of `24` in **increasing order**, one per line.

Your code:

```
n = 24

# complete the code:
for k in ____________________:
    if ____________________:
        print(k)
```

Output:

```
_______
_______
_______
_______
_______
_______
_______
_______
```