

Name: _____
Surname: _____
Date: _____

Instructions

Circle the correct answer for each question, as each question has **only one** correct answer. Provide reasoning for your answer in the space next to each question.

A correct answer always awards a point (even with no explanation).

An incorrect answer with sensible reasoning awards half a point.

An incorrect answer with faulty or no reasoning subtracts one point.

No answer gives zero points (neither adds nor subtracts points).

Assume each code cell is **run in isolation**, meaning no other code has been run before it.

Questions

1. After running this code, what will be the final value of the **variable “x”**? And its type?

```
1 y = 3
2 x = 8
3 x += 1
4 x = x / y
```

- (a) 3 (type int)
- (b) 3.0 (type float)
- (c) 2.667 (type float)
- (d) 8/3 (type real)

2. What will be printed after running the following code?

```
1 message = "good soup"
2 message.upper()
3 message_new = message + "!!!"
4 print(message_new)
```

- (a) “good soup”
- (b) “GOOD SOUP”
- (c) “good soup!!!”
- (d) “GOOD SOUP!!!”

3. Which of the following lines of code will **raise an error**?

```
1 number = 5
2 add = int(number) + 2    # Line 2
3 text = str(number) * 10  # Line 3
4 print(f"{number} + 2 = 7") # Line 4
```

- (a) Line 2.
- (b) Line 3.
- (c) Line 4.
- (d) None of them.

4. What needs to be fixed in the following code to **avoid an error**?

```
1 message = "This will always be a string"
2 if len(message) > 500.0:
3     print("Too much text")
4 elif:
5     print("Good!")
```

- (a) Change `len(message)` to `message`.
- (b) Change `500.0` to `500`.
- (c) Change `elif` to `else`.
- (d) The code works correctly as it is.

5. What will be **the last number** printed after running this code?

```
1 ls_fibonacci = [0, 1, 1, 2, 3, 5, 8, 13]
2
3 for num in ls_fibonacci:
4     if num == 5:
5         break
6     print(num)
```

- (a) 3
- (b) 5
- (c) 13
- (d) The code will never stop running.

6. After running this code, what will be the final value of the **variable** “result”?

```
1 result = 10
2
3 for num in range(1, 4, 2):
4     result = result - num
```

- (a) 6
- (b) 5
- (c) 0
- (d) The code will raise an error.

7. After running this code, what will be the final value of the **variable** “u”?

```
1 u = 6
2 v = 2
3
4 while u >= v:
5     u = u - 1
6     v = v + 1
```

- (a) 6
- (b) 4
- (c) 3
- (d) The code will never stop running.

8. After running this code, what will be printed?

```
1 def exercise(x: float) -> float:
2     y = x * 2
3     return y
4
5 exercise(8)
6 print(y)
```

- (a) 8
- (b) 16
- (c) 16.0
- (d) The code will raise an error.

9. Which one of the following statements about functions is **FALSE**?

- (a) Functions can be defined inside other functions.
- (b) There can be multiple return statements in a function.
- (c) Functions must always contain a return statement.
- (d) Type hints are not mandatory.

10. After running this code, what will be printed?

```
1 def exercise(singer="Taylor Swift", song="Blank Space"):
2     msg = "My favorite song by " + singer + " is " + song
3     print(msg)
```

- (a) Nothing will be printed.
- (b) Python will print “My favorite song by Taylor Swift is Blank Space”.
- (c) Python will print “My favorite song by is ”.
- (d) The code will raise an error.