

Please use python 3.6+ (Never use python 2).

For other packages: Although I didn't run all the tests, likely there will be no problem if you use decently recent versions of any packages used in the homework (any version released after 2017).

If you want, you can increase the number of input parameters, make subfunctions, etc, to realize more general functionalities, unless the "instructions" say not to.

This is a set to make you familiarize with Python. I had to design this problem set, because we mostly do not look at the references and/or not trying to use google. You may refer to *Think Python* chapters and if you cannot find the answer, you must use the Internet.

Problem Set 01 [35 point]

- **Warn:** Be aware not to miss any period (.) or quotation marks (' or ").

1. Write down the results of the following, i.e., write down the results when you `print()` each of these. [22 point]

1. `a1 = 3 + 4`
2. `a2 = 3 + 4.`
3. `b = 4 - 2`
4. `c = 9 * 8`
5. `d = 22 / 3`
6. `e = 22 // 3`
7. `f = 22 % 3`
8. `g1 = 2**2`
9. `g2 = 2.**2`
10. `g3 = 2**2.`
11. `h = "hello"`
12. `a1t = type(a1)`
13. `a2t = type(a2)`
14. `bt = type(b)`
15. `ct = type(c)`
16. `dt = type(d)`
17. `et = type(e)`
18. `ft = type(f)`
19. `g1t = type(g1)`
20. `g2t = type(g2)`
21. `g3t = type(g3)`
22. `ht = type(h)`

2. Using `assert`, write a one-line code that [4 point]

1. checks whether `22` is equal to `3*e + f`.
2. checks whether `g2` is equal to `g3`
3. Write a one-line code which will define `str_quotation`, such that `print(str_quotation)` gives `Hello, World! It's me "Hi"`. (Hint: use the escape charater `\`, e.g., `\"`.) [4 point]
4. Write down the results of the following, i.e., write down the results when you `print()` each of these. [5 point]

1. `L_str = ["a", "b", "c"]`
2. `L_num = [1, 2, 3.]`
3. `tLs = type(L_str)`
4. `tLs0 = type(L_str[0])`
5. `tLn2 = type(L_num[-1])`