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Data structure read access:						
read_list	24.2	24.5	20.8	20.8	19.0	19.5
read_deque	24.7	25.5	20.2	20.6	19.8	20.2
read_dict	24.3	25.7	22.3	23.0	21.0	22.4
read_strdict	22.6	24.3	19.5	21.2	18.9	21.5
Data structure write access:						
write_list	27.1	28.5	22.5	21.6	20.0	20.0
write_deque	28.7	30.1	22.7	21.8	23.5	21.7
write_dict	31.4	33.3	29.3	29.2	24.7	25.4
write_strdict	28.4	29.9	27.5	25.2	23.1	24.5
Stack (or queue) operations:						
list_append_pop	93.4	112.7	75.4	74.2	50.8	50.6
deque_append_pop	43.5	57.0	49.4	49.2	42.5	44.2
deque_append_popleft	43.7	57.3	49.7	49.7	42.8	46.4
Timing loop:						
loop_overhead	0.5	0.6	0.4	0.3	0.3	0.3

These results were generated from the variable access benchmark script at: `Tools/scripts/var_access_benchmark.py`. The benchmark script displays timings in nanoseconds. The benchmarks were measured on an [Intel® Core™ i7-4960HQ processor](#) running the macOS 64-bit builds found at [python.org](#).

8 Deprecated

- The `distutils.bdist_msi` command is now deprecated, use `bdist_wheel` (wheel packages) instead. (Contributed by Hugo van Kemenade in [bpo-39586](#).)
- Currently `math.factorial()` accepts float instances with non-negative integer values (like `5.0`). It raises a `ValueError` for non-integral and negative floats. It is now deprecated. In future Python versions it will raise a `TypeError` for all floats. (Contributed by Serhiy Storchaka in [bpo-37315](#).)
- The `parser` and `symbol` modules are deprecated and will be removed in future versions of Python. For the majority of use cases, users can leverage the Abstract Syntax Tree (AST) generation and compilation stage, using the `ast` module.
- The Public C API functions `PyParser_SimpleParseStringFlags()`, `PyParser_SimpleParseStringFlagsFilename()`, `PyParser_SimpleParseFileFlags()` and `PyNode_Compile()` are deprecated and will be removed in Python 3.10 together with the old parser.
- Using `NotImplemented` in a boolean context has been deprecated, as it is almost exclusively the result of incorrect rich comparator implementations. It will be made a `TypeError` in a future version of Python. (Contributed by Josh Rosenberg in [bpo-35712](#).)
- The `random` module currently accepts any hashable type as a possible seed value. Unfortunately, some of those types are not guaranteed to have a deterministic hash value. After Python 3.9, the module will restrict its seeds to `None`, `int`, `float`, `str`, `bytes`, and `bytearray`.
- Opening the `GzipFile` file for writing without specifying the `mode` argument is deprecated. In future Python versions it will always be opened for reading by default. Specify the `mode` argument for opening it for writing and silencing a warning. (Contributed by Serhiy Storchaka in [bpo-28286](#).)
- Deprecated the `split()` method of `_tkinter.TkappType` in favour of the `splitlist()` method which has more consistent and predicable behavior. (Contributed by Serhiy Storchaka in [bpo-38371](#).)
- The explicit passing of coroutine objects to `asyncio.wait()` has been deprecated and will be removed in version 3.11. (Contributed by Yury Selivanov and Kyle Stanley in [bpo-34790](#).)