

## The Computer Language Benchmarks Game

### Go versus Python 3 fastest programs

vs C++   vs Java   **vs Python**   vs Rust

Always look at the source code.

These are only the fastest programs. Look at the other programs. They may seem more-like a *fair* comparison to you.

#### mandelbrot

source	secs	mem	gz	busy	cpu load			
<u>Go</u>	<b>5.48</b>	31,196	894	21.83	100%	100%	99%	99%
<u>Python 3</u>	259.50	48,192	688	1,036.70	100%	100%	100%	100%

#### spectral-norm

source	secs	mem	gz	busy	cpu load			
<u>Go</u>	<b>3.96</b>	2,692	548	15.74	99%	99%	99%	99%
<u>Python 3</u>	169.87	49,188	417	675.02	100%	99%	99%	99%

#### n-body

source	secs	mem	gz	busy	cpu load			
<u>Go</u>	<b>21.26</b>	1,884	1310	21.41	38%	62%	0%	0%
<u>Python 3</u>	865.18	8,176	1196	874.96	2%	20%	79%	0%

#### fannkuch-redux

source	secs	mem	gz	busy	cpu load			
<u>Go</u>	<b>14.75</b>	3,484	969	58.94	100%	100%	100%	100%
<u>Python 3</u>	534.40	47,236	950	2,104.05	99%	97%	99%	99%

fasta

source	secs	mem	gz	busy	cpu load
<u>Go</u>	<b>2.07</b>	3,744	1358	5.52	79% 80% 27% 81%
<u>Python 3</u>	63.55	844,180	1947	129.71	40% 71% 33% 61%

k-nucleotide

source	secs	mem	gz	busy	cpu load
<u>Go</u>	<b>12.58</b>	150,308	1722	47.83	95% 95% 95% 95%
<u>Python 3</u>	72.24	199,856	1967	275.38	94% 94% 96% 96%

reverse-complement

source	secs	mem	gz	busy	cpu load
<u>Go</u>	<b>3.72</b>	826,396	611	3.93	88% 1% 4% 13%
<u>Python 3</u>	16.93	1,777,852	434	17.58	78% 21% 4% 0%

binary-trees

source	secs	mem	gz	busy	cpu load
<u>Go</u>	<b>25.68</b>	361,532	950	101.67	99% 99% 99% 99%
<u>Python 3</u>	80.30	448,004	589	286.50	95% 87% 87% 88%

pidigits

source	secs	mem	gz	busy	cpu load
<u>Go</u>	<b>2.04</b>	8,732	603	2.09	10% 13% 28% 52%
<u>Python 3</u>	2.38	12,120	567	2.44	0% 3% 1% 98%

regex-redux

source	secs	mem	gz	busy	cpu load			
<u>Go</u>	44.76	405,360	829	106.73	55%	52%	66%	65%
<u>Python 3</u>	2.12	111,692	1403	4.20	35%	41%	88%	34%

Go go version go1.14 linux/amd64

Python 3 Python 3.8.0

all Go programs & measurements

all Python 3 programs & measurements

How programs are measured