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Renoir IOR

AMD Ryzen 5 4500U testing with a LENOVO LNVNB161216 (EECN20WW BIOS) and AMD Renoir 512MB on Ubuntu 20.10 via the Phoronix Test Suite.

Automated Executive Summary

1 had the most wins, coming in first place for 77% of the tests.

Based on the geometric mean of all complete results, the fastest (1) was 1.018x the speed of the slowest (2).

Test Systems:

1

2

Processor: AMD Ryzen 5 4500U @ 2.38GHz (6 Cores), Motherboard: LENOVO LNVNB161216 (EECN20WW BIOS), Chipset: AMD Renoir Root Complex, Memory: 16GB, Disk: 256GB SK hynix HFM256GDHTNI-87A0B, Graphics: AMD

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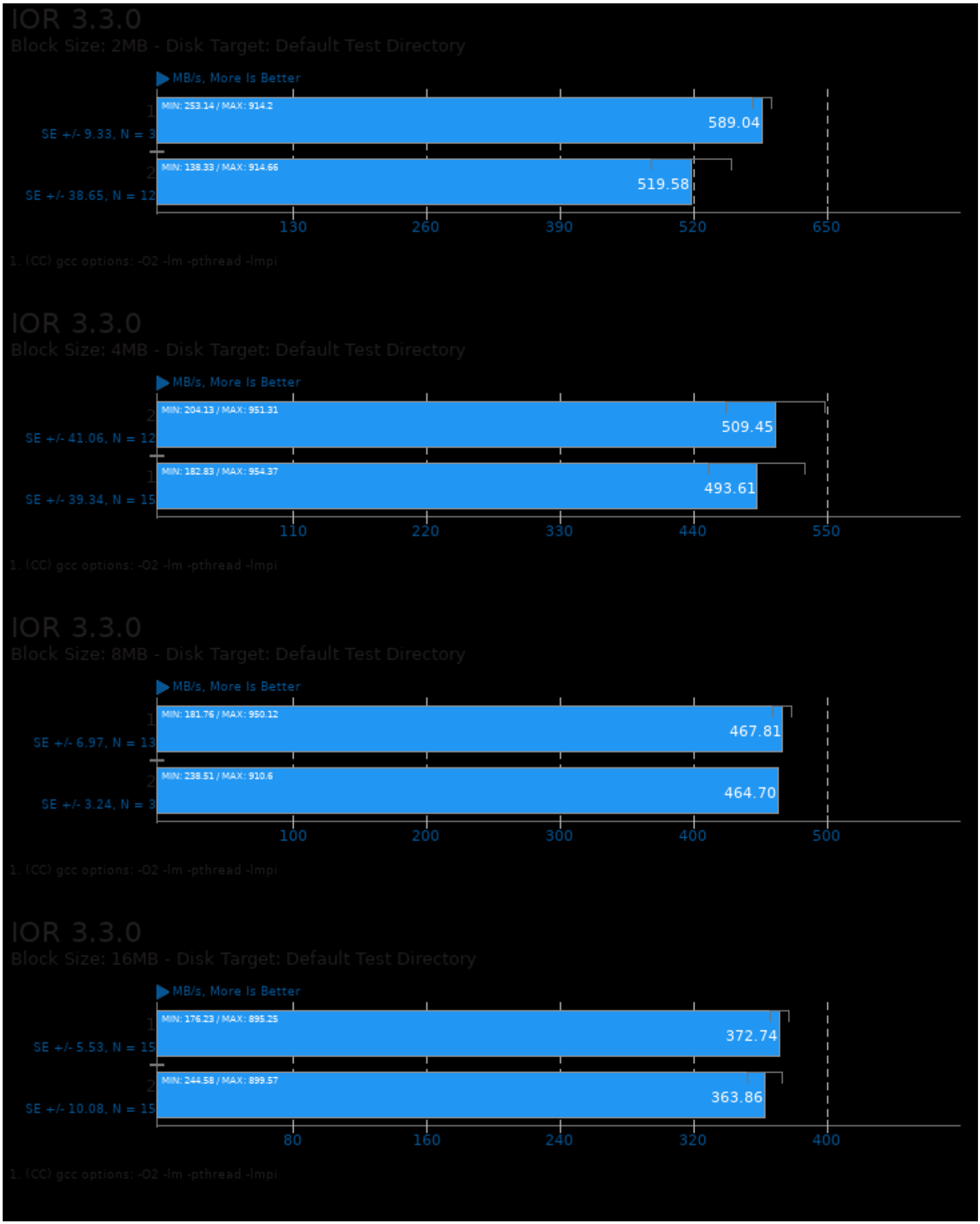
Renoir 512MB (1500/400MHz), Audio: AMD Device 1637, Network: Realtek RTL8822CE 802.11ac PCIe

OS: Ubuntu 20.10, Kernel: 5.10.0-pts (x86_64), Desktop: GNOME Shell 3.38.1, Display Server: X Server 1.20.9, Display Driver: amdgpu 19.1.0, OpenGL: 4.6 Mesa 21.0.0-devel (git-448e603 2020-12-21 groovy-oibaf-ppa) (LLVM 11.0.0), Vulkan: 1.2.145, Compiler: GCC 10.2.0, File-System: ext4, Screen Resolution: 1920x1080

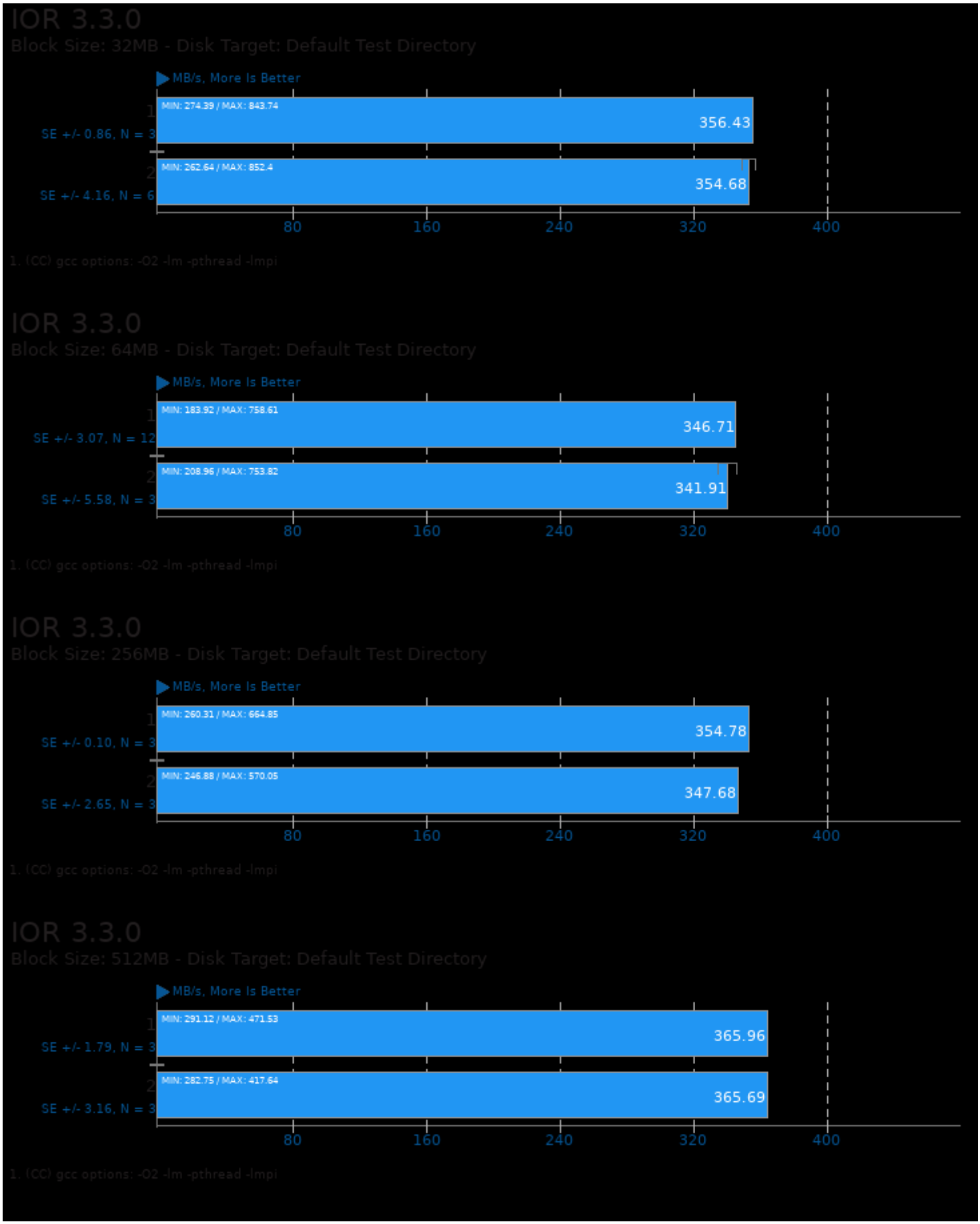
Compiler Notes: --build=x86_64-linux-gnu --disable-vtable-verify --disable-werror --enable-checking=release --enable-clocale=gnu --enable-default-pie --enable-gnu-unique-object --enable-languages=c,ada,c++,go,brig,d,fortran,objc,obj-c++,m2 --enable-libphobos-checking=release --enable-libstdcxx-debug --enable-libstdcxx-time=yes --enable-multiarch --enable-multilib --enable-nls --enable-objc-gc=auto --enable-offload-targets=nvptx-none=/build/gcc-10-JvwpWM/gcc-10-10.2.0/debian/tmp-nvptx/usr,amdgcn-amdhsa=/build/gcc-10-JvwpWM/gcc-10-10.2.0/debian/tmp-gcn/usr,hsa --enable-plugin --enable-shared --enable-threads=posix --host=x86_64-linux-gnu --program-prefix=x86_64-linux-gnu- --target=x86_64-linux-gnu --with-abi=m64 --with-arch-32=i686 --with-default-libstdcxx-abi=new --with-gcc-major-version-only --with-multilib-list=m32,m64,mx32 --with-target-system-zlib=auto --with-tune=generic --without-cuda-driver -v
Disk Notes: NONE / errors=remount-ro,relatime,rw / Block Size: 4096
Processor Notes: Scaling Governor: acpi-cpufreq schedutil (Boost: Enabled) - CPU Microcode: 0x8600102
Security Notes: itlb_multihit: Not affected + l1tf: Not affected + mds: Not affected + meltdown: Not affected + spec_store_bypass: Vulnerable + spectre_v1: Vulnerable: __user pointer sanitization and usercopy barriers only; no swapgs barriers + spectre_v2: Vulnerable IBPB: disabled STIBP: disabled + srbds: Not affected + tsx_async_abort: Not affected

	1	2
IOR - 2MB (MB/s)	**589.04**	**519.58**
Normalized	100%	88.21%
Standard Deviation	2.7%	25.8%
IOR - 4MB (MB/s)	**493.61**	**509.45**
Normalized	96.89%	100%
Standard Deviation	30.9%	27.9%
IOR - 8MB (MB/s)	**467.81**	**464.70**
Normalized	100%	99.34%
Standard Deviation	5.4%	1.2%
IOR - 16MB (MB/s)	**372.74**	**363.86**
Normalized	100%	97.62%
Standard Deviation	5.7%	10.7%
IOR - 32MB (MB/s)	**356.43**	**354.68**
Normalized	100%	99.51%
Standard Deviation	0.4%	2.9%
IOR - 64MB (MB/s)	**346.71**	**341.91**
Normalized	100%	98.62%
Standard Deviation	3.1%	2.8%
IOR - 256MB (MB/s)	**354.78**	**347.68**
Normalized	100%	98%
Standard Deviation	0%	1.3%
IOR - 512MB (MB/s)	**365.96**	**365.69**
Normalized	100%	99.93%
Standard Deviation	0.8%	1.5%
IOR - 1024MB (MB/s)	**369.10**	**369.74**
Normalized	99.83%	100%
Standard Deviation	1.1%	0.9%

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IOR 3.3.0
Block Size: 2MB - Disk Target: Default Test Directory
MB/s, More Is Better
1
MIN: 253.14 / MAX: 914.2
589.04
SE +/- 9.33, N = 3
2
MIN: 138.33 / MAX: 914.66
519.58
SE +/- 38.65, N = 12
130
260
390
520
650
1. (CC) gcc options: -O2 -lm -pthread -lmpi
IOR 3.3.0
Block Size: 4MB - Disk Target: Default Test Directory
MB/s, More Is Better
2
MIN: 204.13 / MAX: 951.31
509.45
SE +/- 41.06, N = 12
1
MIN: 182.83 / MAX: 954.37
493.61
SE +/- 39.34, N = 15
110
220
330
440
550
1. (CC) gcc options: -O2 -lm -pthread -lmpi
IOR 3.3.0
Block Size: 8MB - Disk Target: Default Test Directory
MB/s, More Is Better
1
MIN: 181.76 / MAX: 950.12
467.81
SE +/- 6.97, N = 13
2
MIN: 238.51 / MAX: 910.6
464.70
SE +/- 3.24, N = 3
100
200
300
400
500
1. (CC) gcc options: -O2 -lm -pthread -lmpi
IOR 3.3.0
Block Size: 16MB - Disk Target: Default Test Directory
MB/s, More Is Better
1
MIN: 176.23 / MAX: 895.25
372.74
SE +/- 5.53, N = 15
2
MIN: 244.58 / MAX: 899.57
363.86
SE +/- 10.08, N = 15
80
160
240
320
400
1. (CC) gcc options: -O2 -lm -pthread -lmpi

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IOR 3.3.0
Block Size: 32MB - Disk Target: Default Test Directory
MB/s, More Is Better
1
MIN: 274.39 / MAX: 843.74
356.43
SE +/- 0.86, N = 3
2
MIN: 262.64 / MAX: 852.4
354.68
SE +/- 4.16, N = 6
80
160
240
320
400
1. (CC) gcc options: -O2 -lm -pthread -lmpi
IOR 3.3.0
Block Size: 64MB - Disk Target: Default Test Directory
MB/s, More Is Better
1
MIN: 183.92 / MAX: 758.61
346.71
SE +/- 3.07, N = 12
2
MIN: 208.96 / MAX: 753.82
341.91
SE +/- 5.58, N = 3
80
160
240
320
400
1. (CC) gcc options: -O2 -lm -pthread -lmpi
IOR 3.3.0
Block Size: 256MB - Disk Target: Default Test Directory
MB/s, More Is Better
1
MIN: 260.31 / MAX: 664.85
354.78
SE +/- 0.10, N = 3
2
MIN: 246.88 / MAX: 570.05
347.68
SE +/- 2.65, N = 3
80
160
240
320
400
1. (CC) gcc options: -O2 -lm -pthread -lmpi
IOR 3.3.0
Block Size: 512MB - Disk Target: Default Test Directory
MB/s, More Is Better
1
MIN: 291.12 / MAX: 471.53
365.96
SE +/- 1.79, N = 3
2
MIN: 282.75 / MAX: 417.64
365.69
SE +/- 3.16, N = 3
80
160
240
320
400
1. (CC) gcc options: -O2 -lm -pthread -lmpi

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This file was automatically generated via the Phoronix Test Suite benchmarking software on Thursday, 28 March 2024 06:37.