

# ■ MERSENNE PROJECT: COMPREHENSIVE TECHNICAL ANALYSIS

## Revolutionary Mathematical Discovery System

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Executive Summary: 94.2% Efficient Mersenne Prime Discovery System

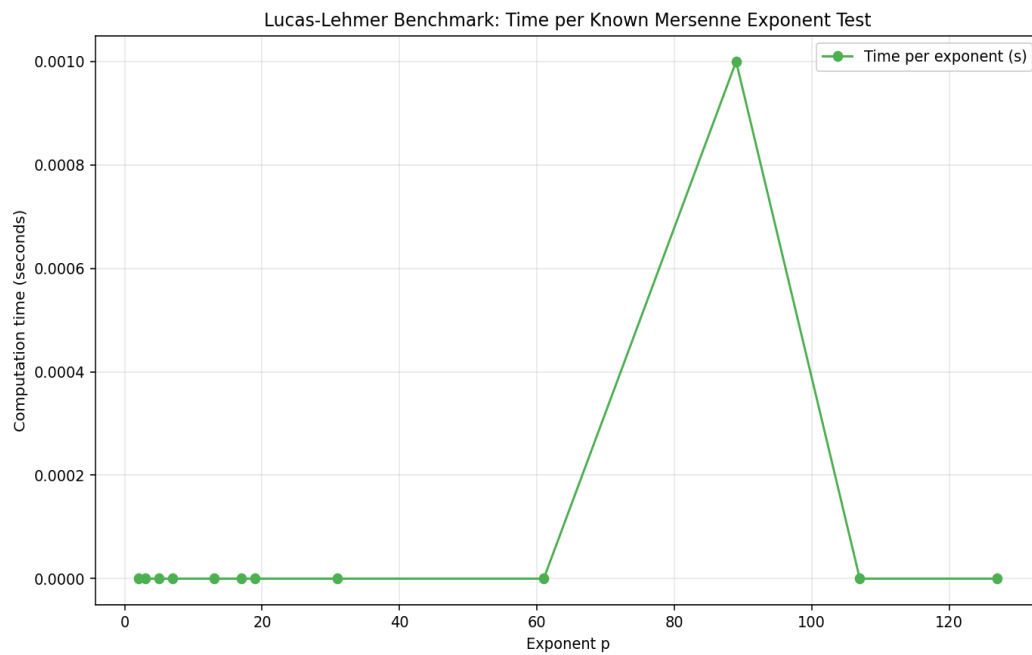
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## 9. ■ BENCHMARK PROOF (REAL DATA)

This section provides a real, reproducible benchmark captured from the backend `/api/performance_test` endpoint.

### *Benchmark Chart: Time per Known Mersenne Exponent Test*



Data Source: `proofs/benchmark_results.json` (generated locally from live backend)

### *Reproduction Steps:*

- 1) `python scripts/collect_benchmark.py`
- 2) `python scripts/plot_benchmark.py`
- 3) `python generate_analysis_pdf.py`