

Einsum Benchmark: Enabling the Development of Next-Generation Tensor Execution Engines

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Category	Problems	Tensors	Hyperedges	Hadamards	Traces
Graphical models	10	125–3 692	✓	✗	✗
Tensor network language models	25	38–178	✗	✗	✗
Model counting	50	331–579 972	✓	✓	✓
Quantum computing	32	202–17 136	✓	✓	✗
Random problems	16	53–1 668	✓	✓	✓
Structural problems	21	26–2 000	✗	✗	✗
Weighted model counting	14	358–230 848	✓	✓	✓



generators and converters to create new instances

- 💡 Contains 168 einsum problems across seven categories
- ⚙️ Includes generators and converters to create additional einsum problems
- 🌐 Freely accessible at <https://benchmark.einsum.org>

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