

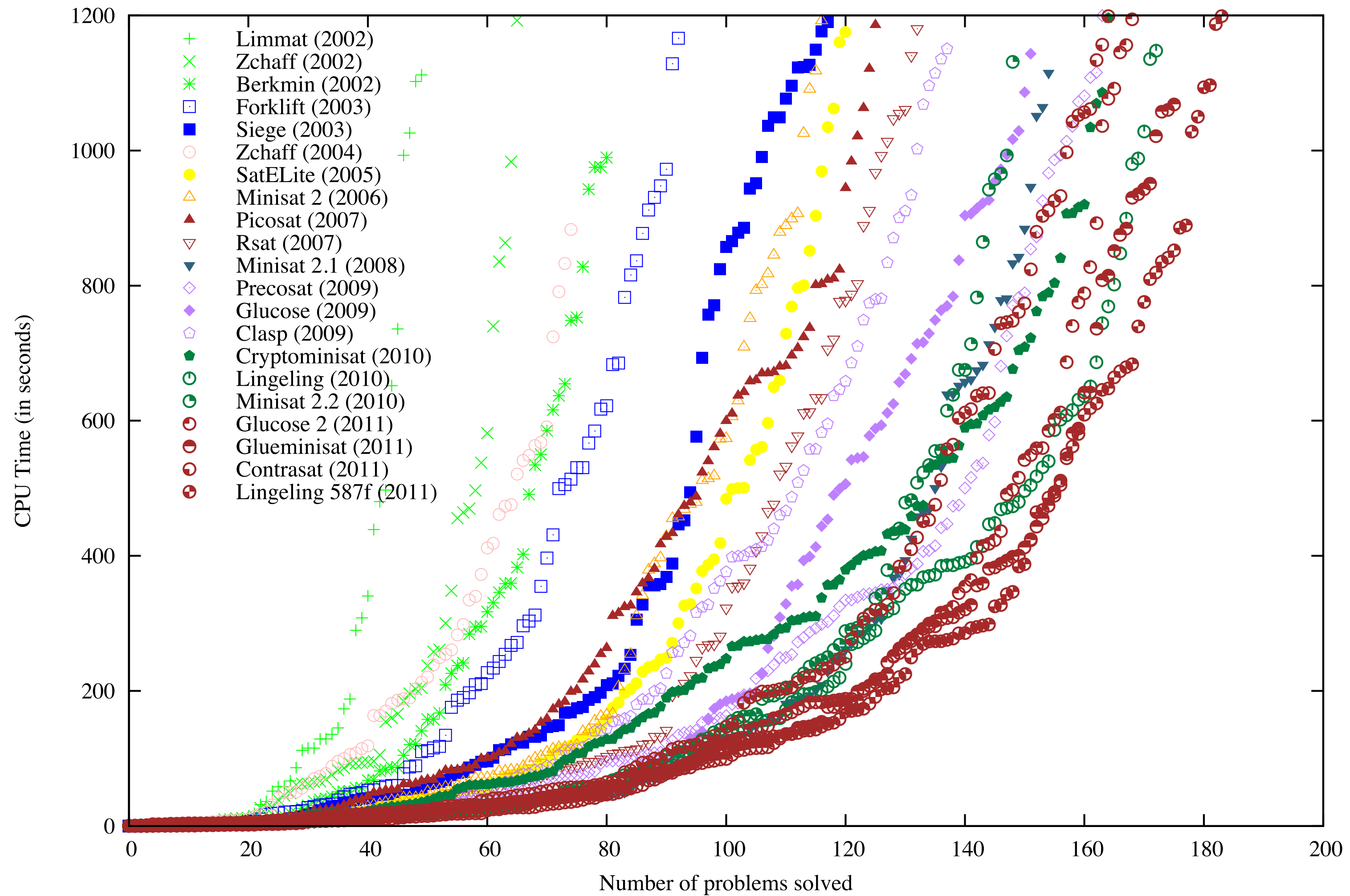
Verified SAT Solver Competition

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October 23, 2018

**Carnegie
Mellon
University**

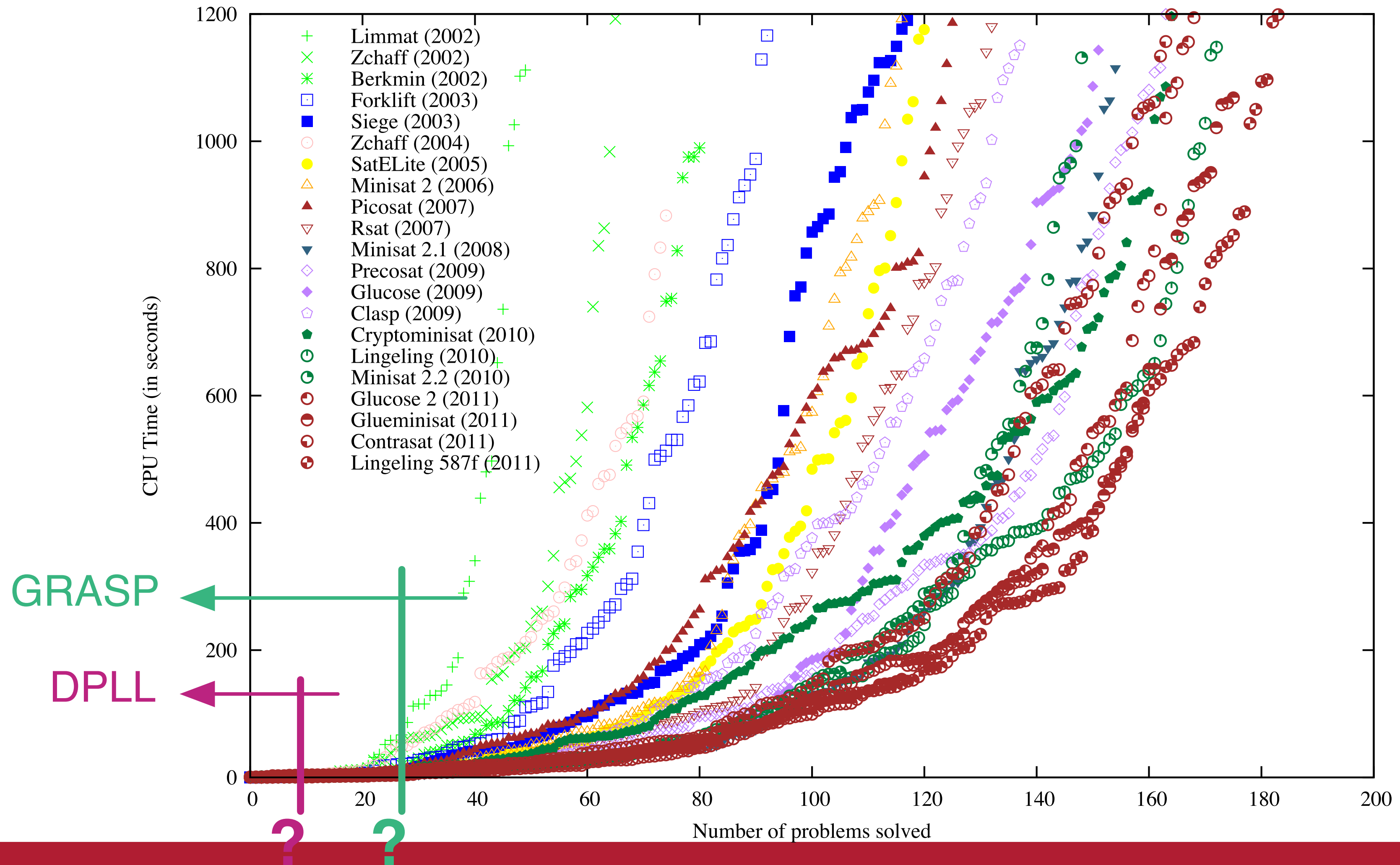
SAT Solver Improvement

Results of the SAT competition/race winners on the SAT 2009 application benchmarks, 20mn timeout



SAT Solver Improvement

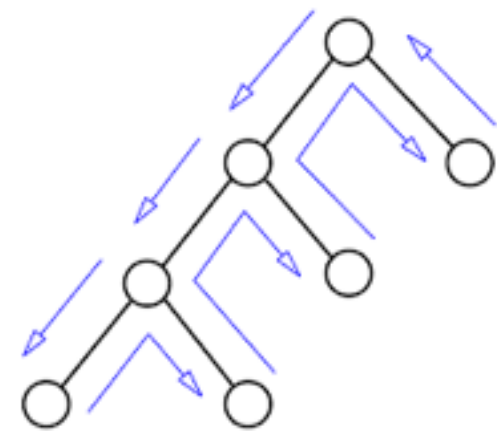
Results of the SAT competition/race winners on the SAT 2009 application benchmarks, 20mn timeout



Building a Verified SAT Solver



Lab 3: Sheep SAT - enumerate all interpretations



Lab 4: DPLL - improve the solver with unit propagation



Verified SAT Competition



Improve your **verified** solver with:

- Simplification techniques (pure literal, ...)
- More efficient data structures for unit propagation
- Clause learning
- ...



How can I participate?



1. Improve your verified solver
2. Write a 1 page description of your techniques
3. Give your solver a cool name and solve real problems!



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If you improve your solver you will **not need** to do Lab 5 (Bounded Model Checking)!



What can I win?



December 3 - December 7

1. Fame and glory!

2. Prizes for:

(1) Most efficient verified solver

(2) Most original verified techniques

(3) Random winner

(4)

3. Food for everyone!

