Games, graphs, and machines



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Poset chomp

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- 1. Interpret *Chomp* as the Poset Chomp of a poset.
- 2. Interpret Nim(2,3) as the Poset Chomp of a poset.



Divisor poset chomp

Let S be the divisor poset of 30 excluding the number 1. Is PosetChomp(S) an N-game or a P-game?



(e) Change $0^{12}1^{12}$ to $0^{12}1^{12}$ (only add an extra O, not 1)

Divisor poset chomp

Let S be the divisor poset of 30 excluding the number 1. Is PosetChomp(S) an N-game or a P-game? What is the winning move?

Adding

Let S be the divisor poset of 30 excluding the number 1. Is PosetChomp(S) + Nim(4, 4) an N-game or P-game?

N+P is P; P+P is P

Theorem

- 1. N + P = P
- 2. P + P = P

N+N could be either!

Find an example where an N-game + an N-game is a P game.

Find an example where an N-game + an N-game is a P game. Find an example where an N-game + an N-game is an N game.