

# Maker-Breaker Games: Building a Big Chain in a Poset

Daniel W. Cranston

Virginia Commonwealth University

[dcranston@vcu.edu](mailto:dcranston@vcu.edu)

Joint with Bill Kinnersley, Kevin Milans, Greg Puleo, Douglas West

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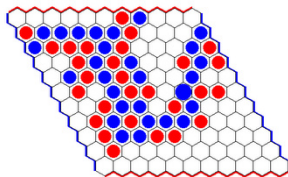
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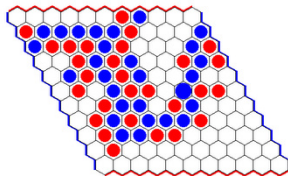
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We want to find the **threshold** where the game switches from a Breaker win to a Maker win.



# Subset Lattices

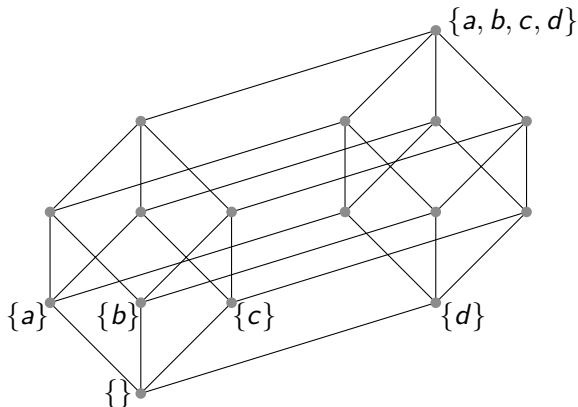
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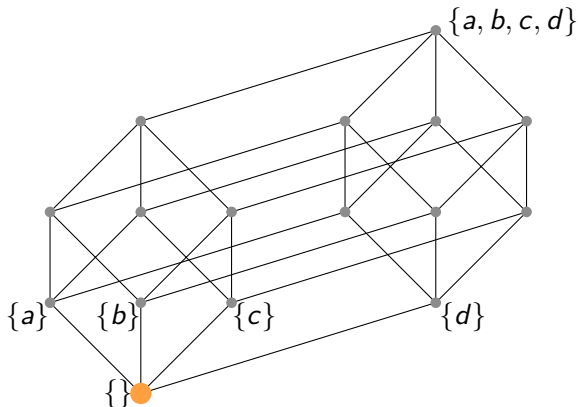
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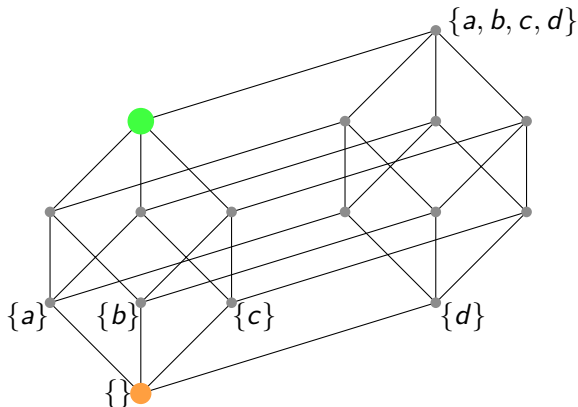
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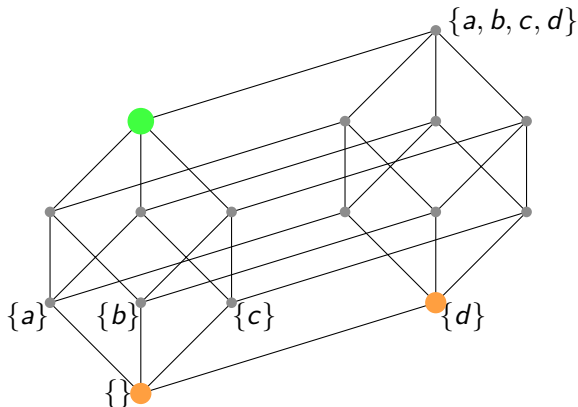
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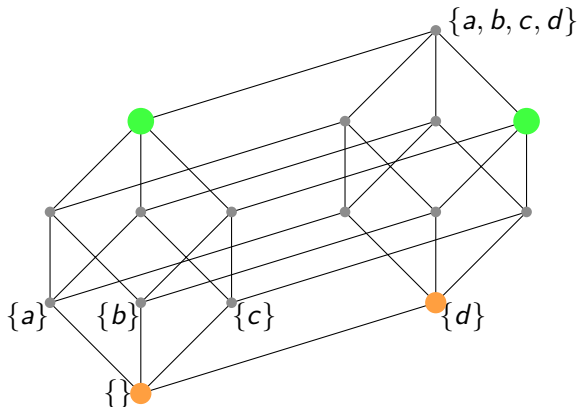
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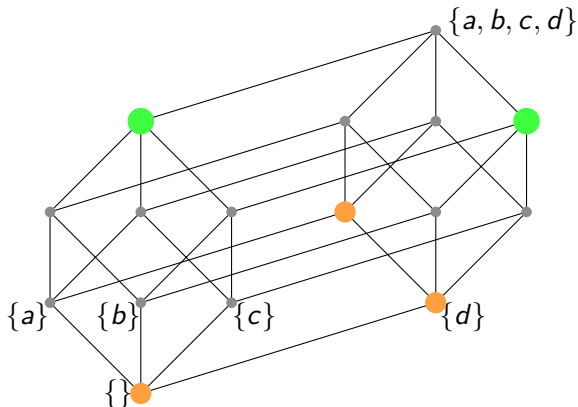




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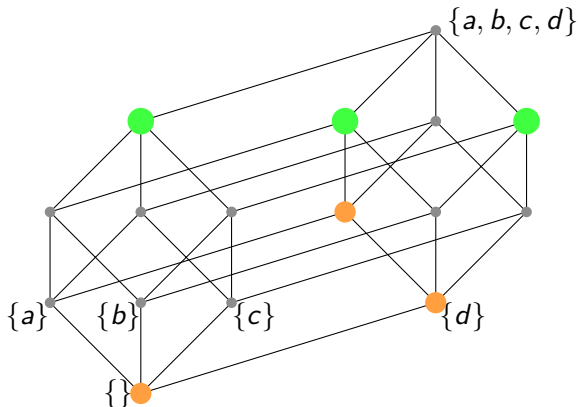
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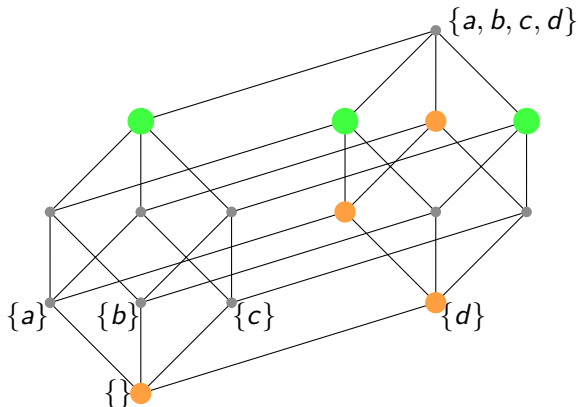
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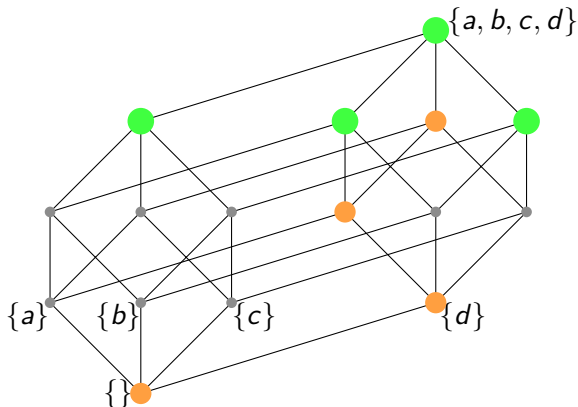
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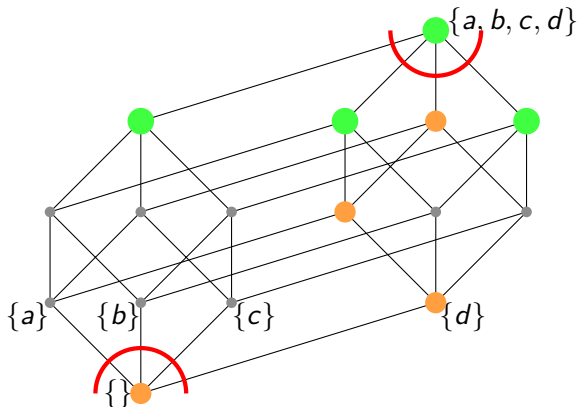
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## Corollary

In the poset  $\widehat{L}_n$ , Maker can get a maximum size chain.

## Product of Two Chains

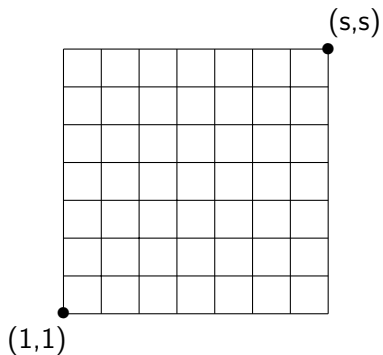
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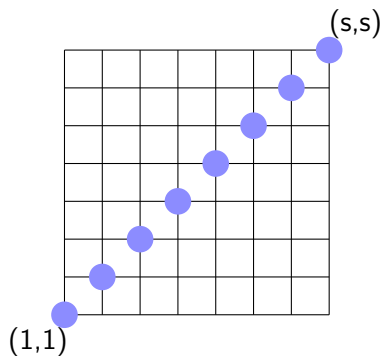
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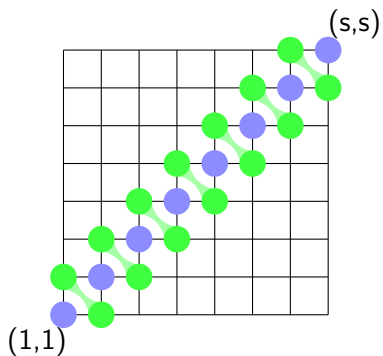




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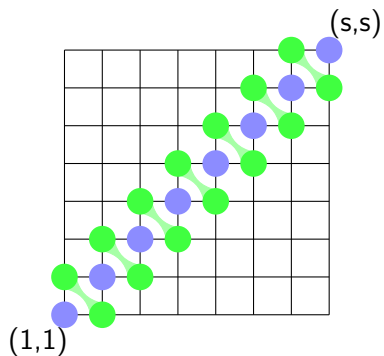
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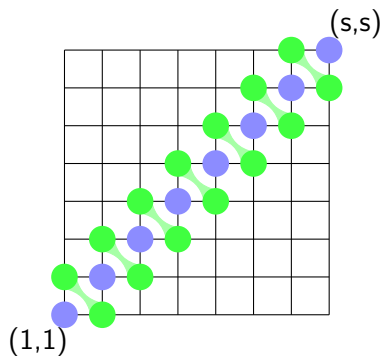
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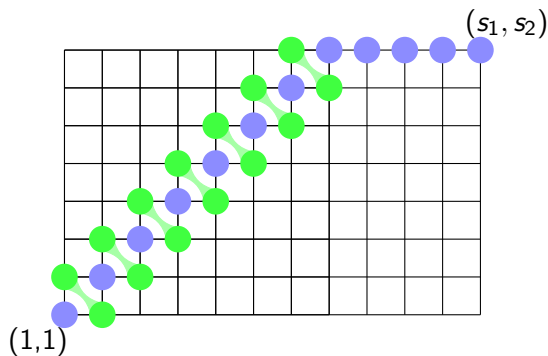
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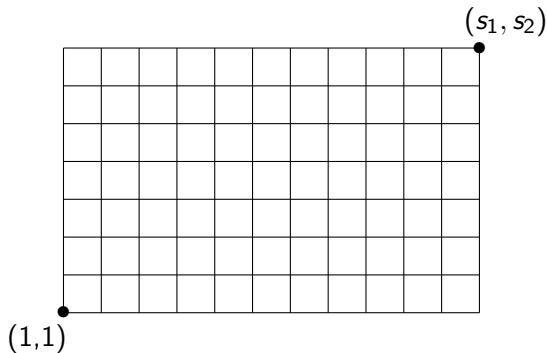
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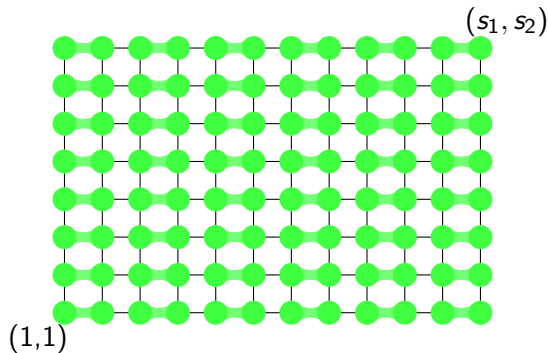
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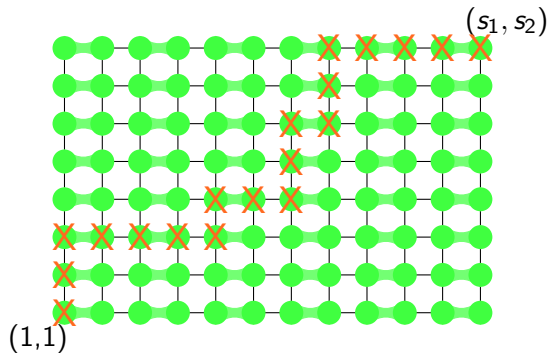
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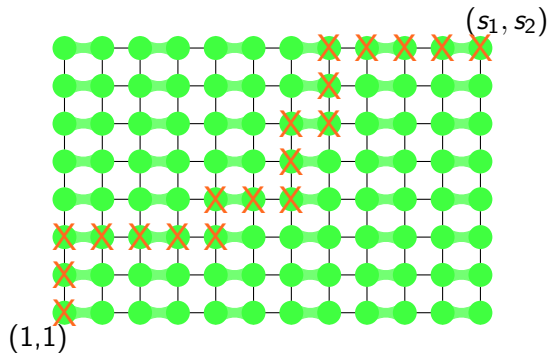
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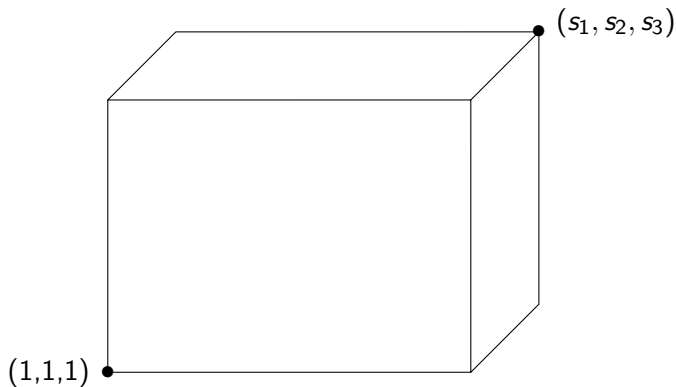
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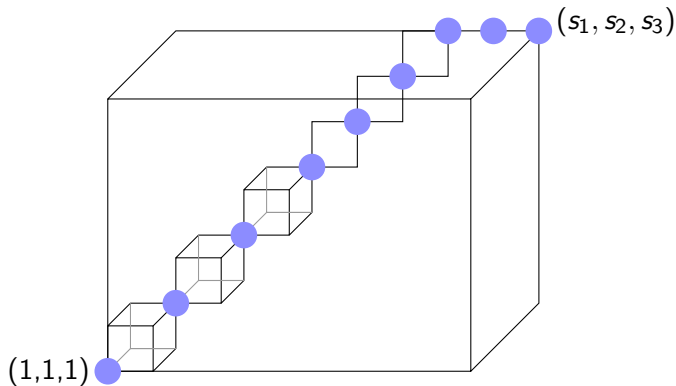


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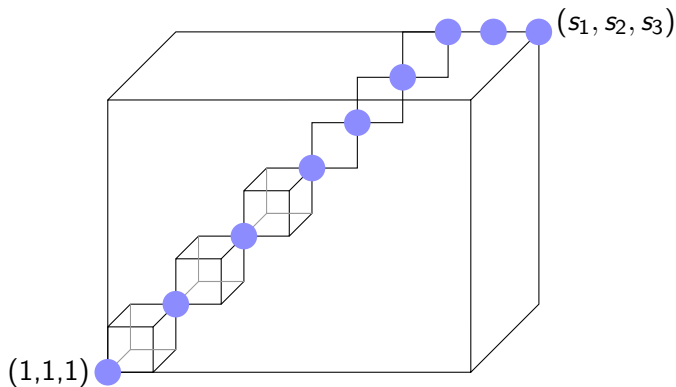


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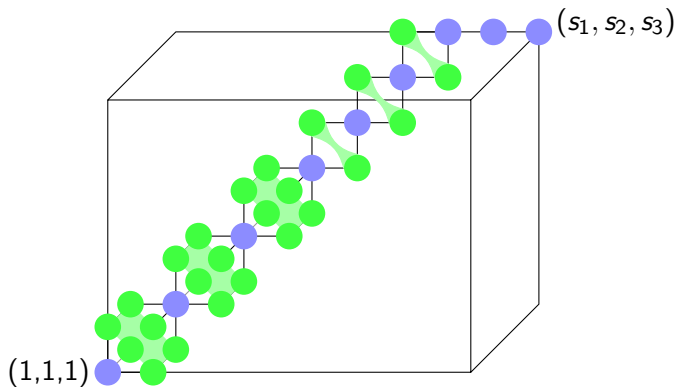
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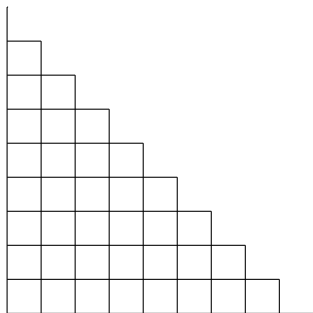
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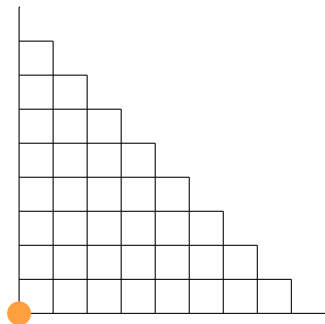
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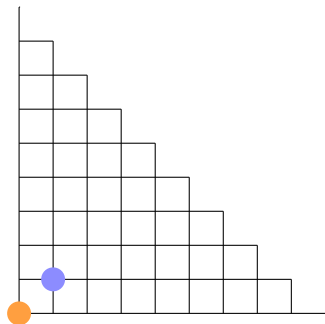
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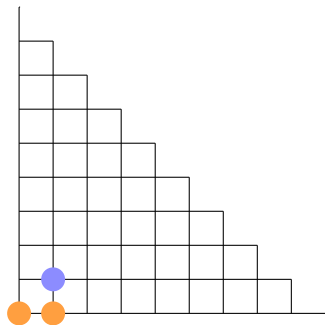
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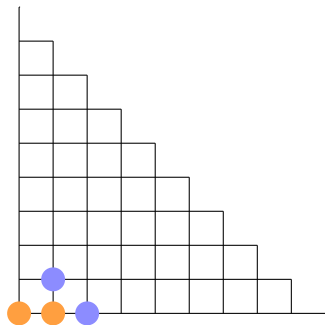
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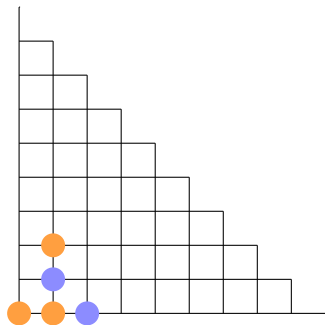
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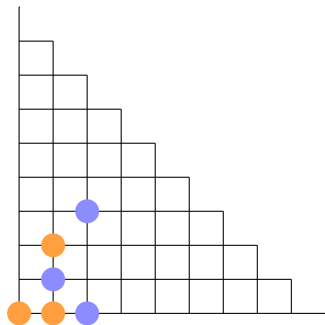
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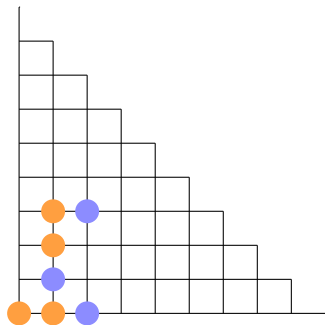
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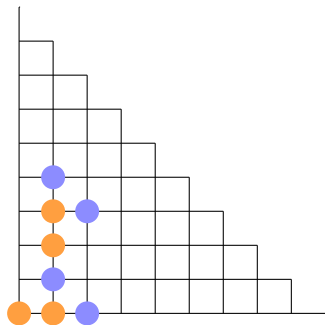
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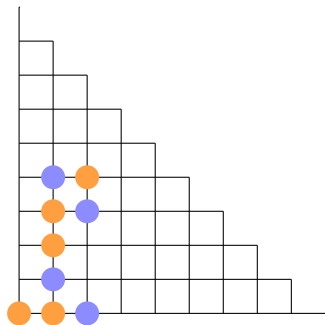
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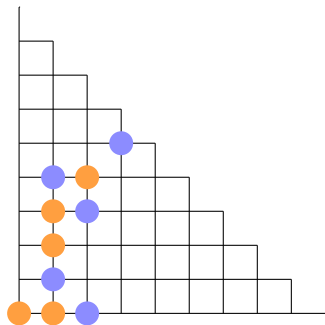
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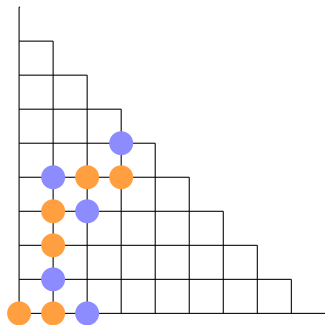
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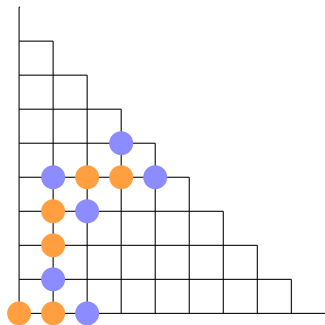
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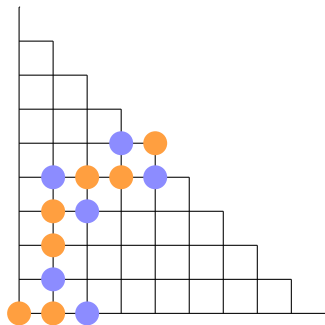
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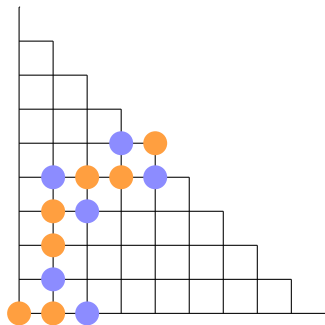
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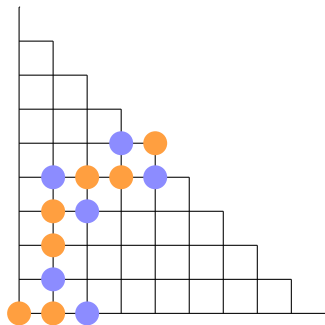
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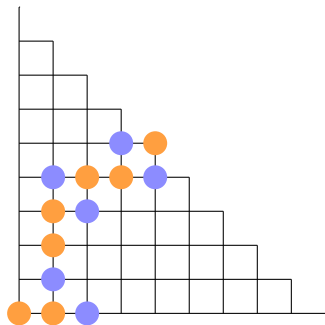
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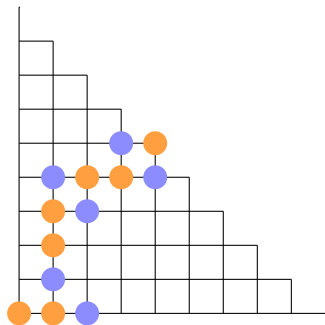
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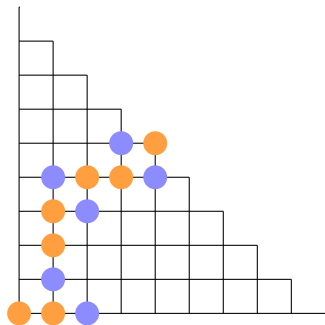
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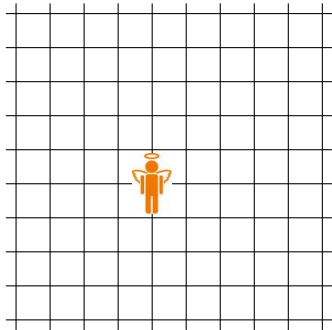
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# Angel-Devil game

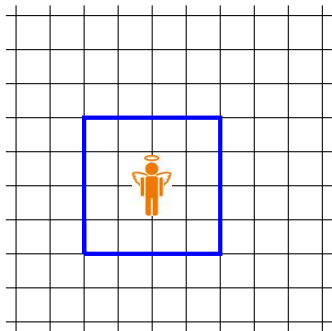
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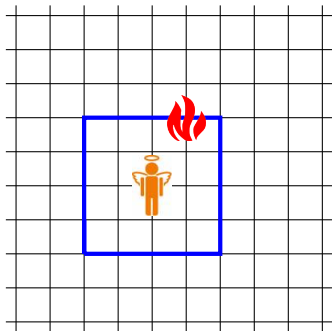


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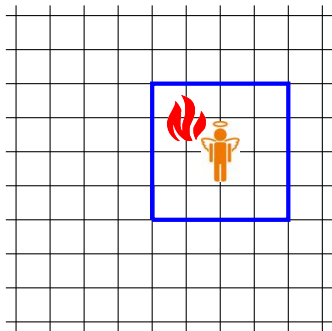


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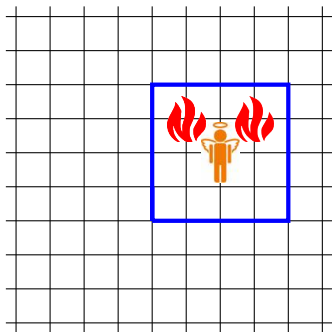


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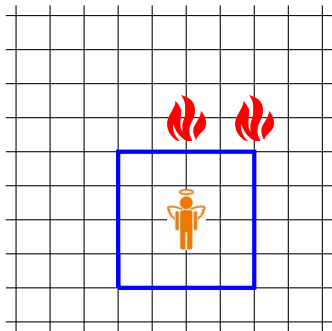


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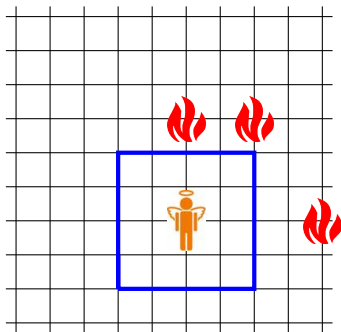


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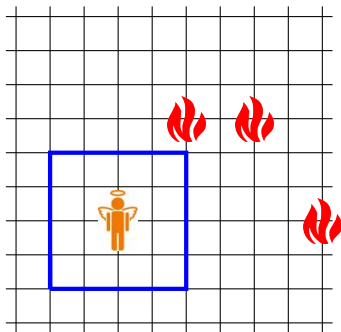


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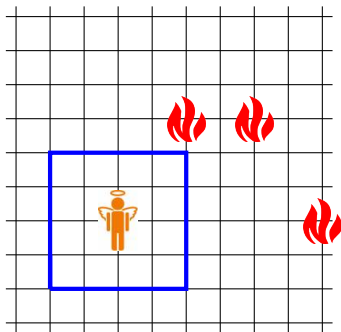


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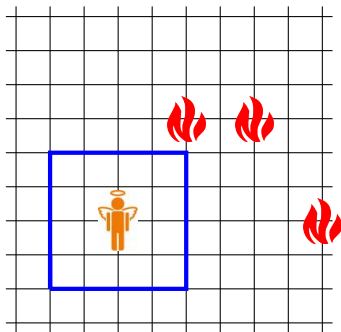
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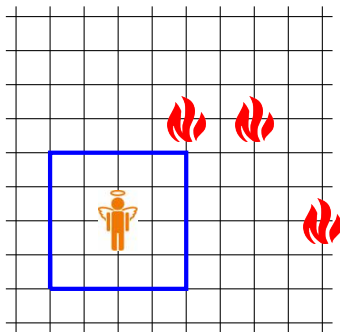
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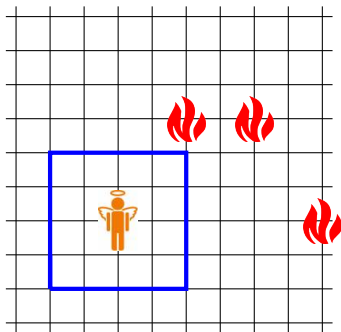
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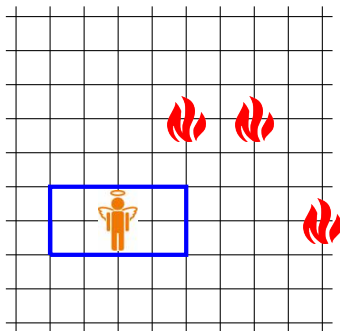
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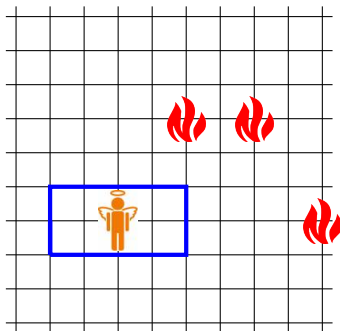
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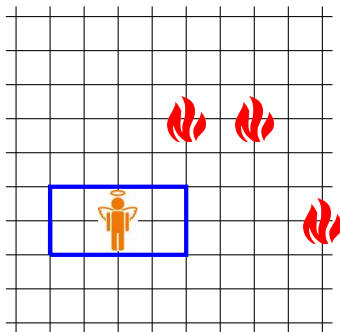
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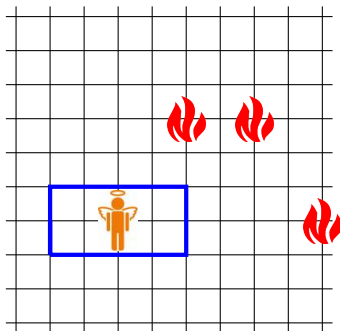
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