上海大学
Shanghai University

The title of your thesis or dissertation should be typed here

Student name

Department of Mathematics
Shanghai University

10 Feb 2018

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Overview

Overview

- The trivial Set Cover algorithm has running time of $\mathcal{O}(2^n)$.

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- bla, bla, bla...

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Lists - Itemize

- Point A
- Point B
  - part 1
  - part 2
- Point C
- Point D

Lists - Itemize with Pause

Lists - Itemize with Pause

- Point A

Lists - Itemize with Pause

- Point A
- Point B

Lists - Itemize with Pause

- Point A
- Point B
  - part 1

Lists - Itemize with Pause

- Point A
- Point B
  - part 1
  - part 2

Lists - Itemize with Pause

- Point A
- Point B
  - part 1
  - part 2
- Point C

Lists - Itemize with Pause

- Point A
- Point B
  - part 1
  - part 2
- Point C
- Point D

Lists - Enumerate

1. Point A
2. Point B
    1. part 1
    2. part 2
3. Point C
4. Point D

Lists - Enumerate (Roman Numerals)

I. Point A
II. Point B
    i. part 1
    ii. part 2
III. Point C
IV. Point D

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Columns

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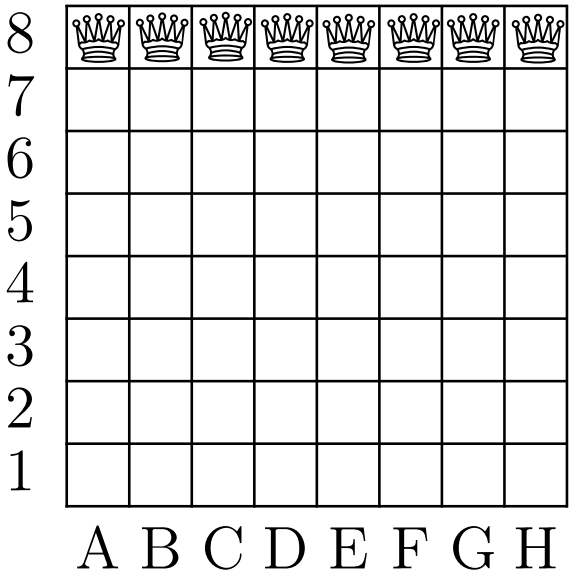
Domination on a Chessboard

Domination on a Chessboard



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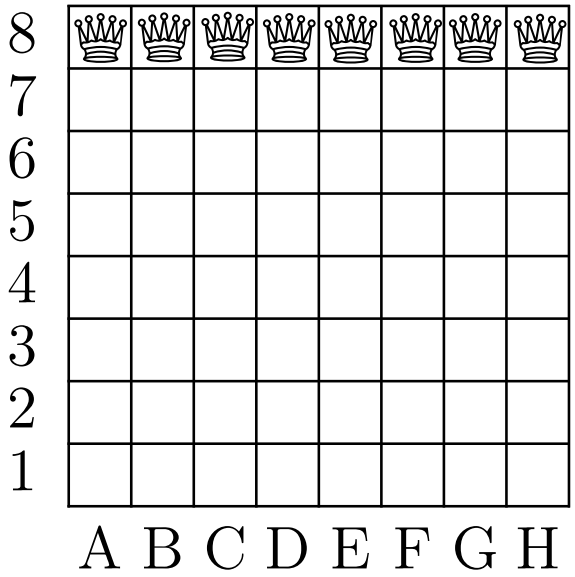

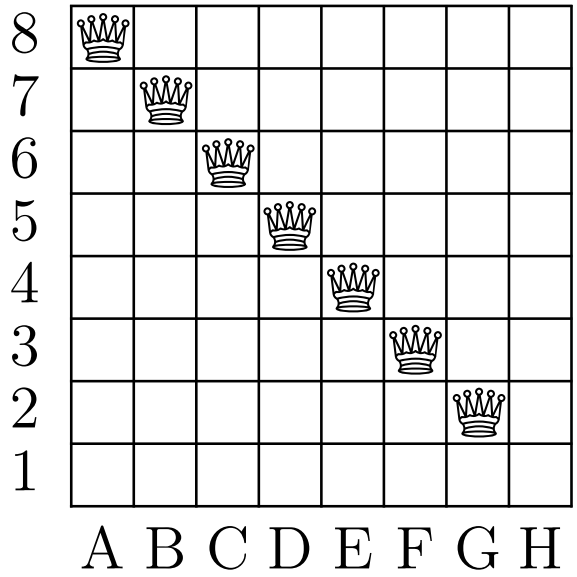

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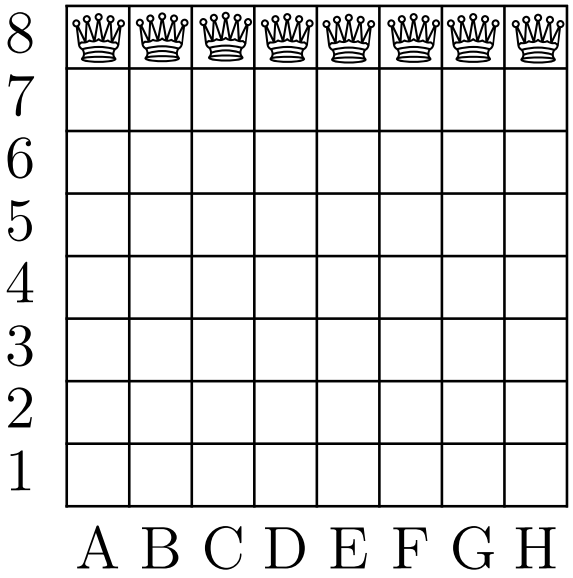

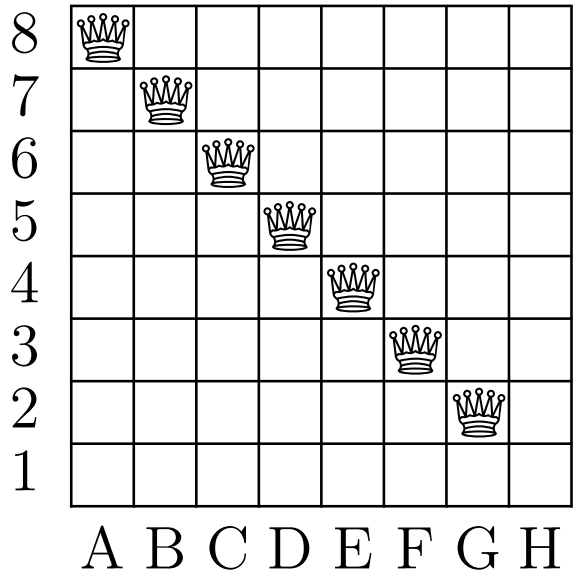

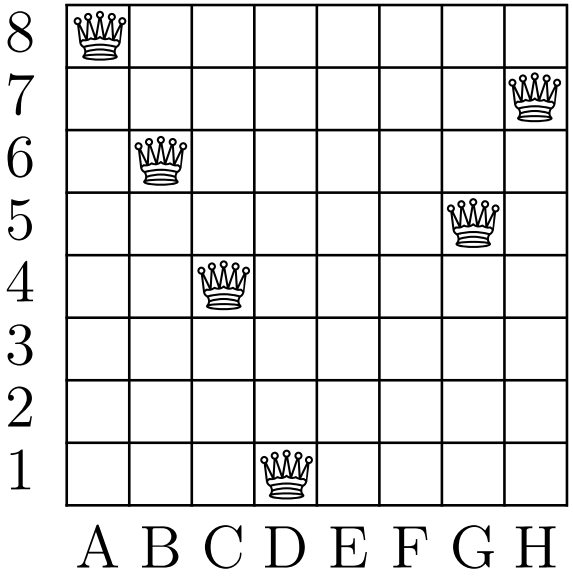

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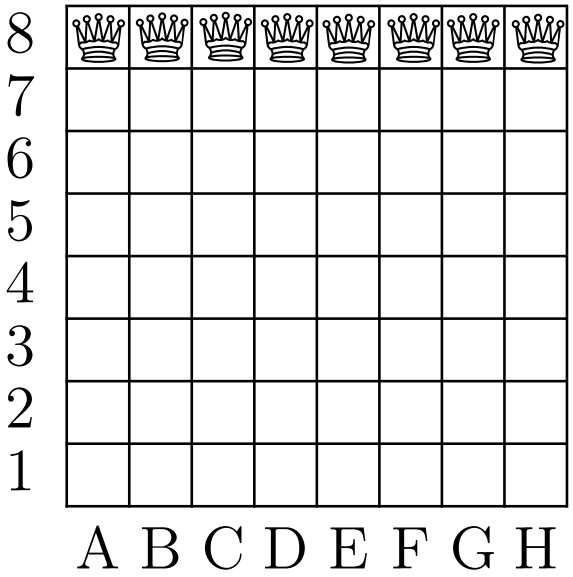

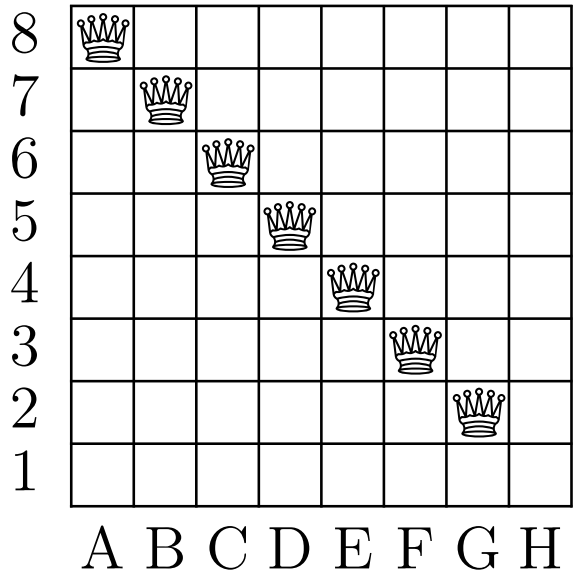

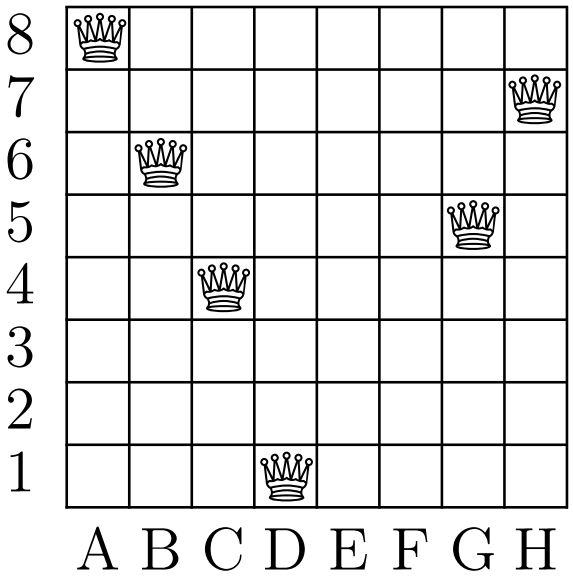

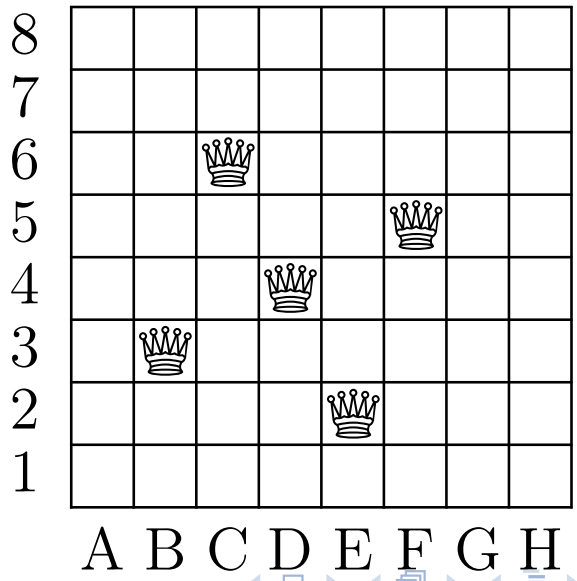

Single figure with caption

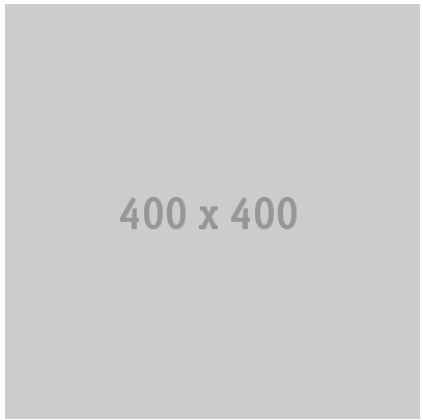

图: This is an caption!

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Description Environment

API Application Programming Interface

LAN Local Area Network

ASCII American Standard Code for Information Interchange

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Tables

Competitor Name	Swim	Cycle	Run	Total
John T	13:04	24:15	18:34	55:53
Norman P	8:00	22:45	23:02	53:47
Alex K	14:00	28:00	n/a	n/a
Sarah H	9:22	21:10	24:03	54:35

表: Triathlon results

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Blocks

Block Title

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

Alert Block Title

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Definition

Then there's the definition environment which produces a standard ColorA color block but with the title already specified as 'definition'.

```
\begin{definition}
A prime number is a number that...
\end{definition}
```

定义

A prime number is a number that...

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Example

Next there's the example environment which produces a green block with the title 'Example'.

```
\begin{example}
Lorem ipsum dolor sit amet...
\end{example}
```

例

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

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Theorem

There is also a group of blocks that are especially useful for presenting mathematics. For example the 'theorem' environment, the 'corollary'environment and the 'proof' environment.

```
\begin{theorem}[Pythagoras]
$a^2 + b^2 = c^2$
\end{theorem}
\begin{corollary}
$x + y = y + x$
\end{corollary}
\begin{proof}
$\omega + \phi = \epsilon$
\end{proof}
```

Theorem Blocks

定理 (Pythagoras)

$a^2 + b^2 = c^2$

推论

$x + y = y + x$

证明.

$\omega + \phi = \epsilon$ □

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Hyperlink

Before we can create any hyperlinks we need to tag the frames we want to link to using the ommand.

click here section 1 page ▸ columns page ▸▸ pictures page ◂ pictures page

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A trivial Set Cover algorithm

Algorithm 1: $\texttt{MSC}(\mathcal{S},\mathcal{U})$

Input : A set cover instance $(\mathcal{S},\mathcal{U})$ and a variable $\mathcal{S}_{\text{dom}}$.
Output : A minimum set cover of $(\mathcal{S},\mathcal{U})$.

```
1  if S = ∅ then
2      return ∅;
3  Let S ∈ S be a set of maximum cardinality;
4  C1 = {S} ∪ MSC({S' \ S | S' ∈ S \ {S}}, U \ S);
5  C2 = MSC(S \ {S}, U);
6  S_dom ← ∅;
7  if U ⊆ C1 then
8      S_dom ← C1;
9      if U ⊆ C2 then
10         if |C2| < |C1| then
11             S_dom ← C2;
12 return S_dom;
```

References

Fomin FV, Grandoni F & Kratsch D, 2009, *A note on the complexity of minimum dominating set* , Journal of Discrete Algorithms, **4(2)**, pp. 209–214. cite here[1]

Grobler PJP & Mynhardt CM, 2009, *Secure domination critical graphs*, Discrete Mathematics, **309**, pp. 5820–5827.

Van Rooij JMM & Bodlaender HL, 2011, *Exact algorithms for dominating set*, Discrete Applied Mathematics, **159**, pp. 2147–2164.

[1] Kou Zhongbao and Zhang Changshui. "Reply networks on a bulletin board system". In: *Physical Review E* 67.3 (2003), p. 036117.