beamer examples created with beamer 3.x

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28. September 2014

Teil I

Tutorial

Contents

A prime number is a number that has exactly two divisors.

Definition

A prime number is a number that has exactly two divisors

Example

- ▶ 2 is prime (two divisors: 1 and 2).
- 3 is prime (two divisors: 1 and 3).
- ▶ 4 is not prime (three divisors: 1, 2, and 4).

Definition

A prime number is a number that has exactly two divisors

Example

▶ 2 is prime (two divisors: 1 and 2).

Definition

A prime number is a number that has exactly two divisors

Example

- ▶ 2 is prime (two divisors: 1 and 2).
- ➤ 3 is prime (two divisors: 1 and 3).

Definition

A prime number is a number that has exactly two divisors

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- ▶ 2 is prime (two divisors: 1 and 2).
- 3 is prime (two divisors: 1 and 3).
- ▶ 4 is not prime (three divisors: 1, 2, and 4).

The proof uses reductio ad absurdum.

Theorem

There is no largest prime number.

Beweis.

1 Suppose *p* were the largest prime number.

4 Thus q+1 is also prime and greater than p.



The proof uses reductio ad absurdum.

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There is no largest prime number.

Beweis.

- 1 Suppose *p* were the largest prime number.
- 2 Let *q* be the product of the first *p* numbers.
- 4 Thus q+1 is also prime and greater than p.



The proof uses reductio ad absurdum.

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There is no largest prime number.

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- 1 Suppose *p* were the largest prime number.
- 2 Let *q* be the product of the first *p* numbers.
- 3 Then q+1 is not divisible by any of them.
- Thus q + 1 is also prime and greater than p.



The proof uses reductio ad absurdum.

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- Let q be the product of the first p numbers.
- 3 Then q+1 is not divisible by any of them.
- 4 Thus q+1 is also prime and greater than p.

The proof used reductio ad absurdum.

What's Still To Do?

Answered Questions

How many primes are there?

Open Questions

Is every even number the sum of two primes?

What's Still To Do?

- Answered Questions
 - How many primes are there?
- Open Questions
 - Is every even number the sum of two primes?

What's Still To Do?

Answered Questions

How many primes are there?

Open Questions

Is every even number the sum of two primes? [?]

```
int main (void)
  std::vector<bool> is prime (100, true);
  for (int i = 2; i < 100; i++)
    if (is_prime[i])
        std::cout << i << " ";
        for (int j = i; j < 100;
            is_prime [j] = false, j+=i);
  return 0;
```

```
int main (void)
 std::vector<bool> is_prime (100, true);
 for (int i = 2; i < 100; i++)
return 0;
```

```
int main (void)
 std::vector<bool> is_prime (100, true);
 for (int i = 2; i < 100; i++)
    if (is_prime[i])
return 0;
```

```
int main (void)
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    if (is_prime[i])
        std::cout « i « " ";
        for (int j = i; j < 100;
             is_prime [j] = false, j+=i);
return 0;
```

```
int main (void)
 std::vector<bool> is prime (100, true);
 for (int i = 2; i < 100; i++)
    if (is_prime[i])
        std::cout « i « " ";
        for (int j = i; j < 100;
             is_prime [j] = false, j+=i);
return 0;
```

Note the use of std::.

Teil II

Howtos

Contents

First point.

First point.

- First point.
- Second point.

- First point.
- ► Second point.

- First point.
- Second point.
- ► Third point.
- First point.
- Second point.
- ► Third point.

- First point.
- Second point.
- ► Third point.
- First point.
- Second point.
- ► Third point.
- First point.
- Second point.

- First point.
- Second point.
- ► Third point.
- First point.
- Second point.
- ► Third point.
- First point.
- Second point.
- ► Third point.

► First point.

or

► First point.

- First point.
- ► Second point.

or

- First point.
- ► Second point.

- First point.
- Second point.
- ► Third point.

or

- First point.
- Second point.
- ► Third point.

g a ballot First point.

and

g a ballot First point.

First point.

g a ballot Second point.

and

First point.

g a ballot Second point.

- First point.
- Second point.
- g a ballot Third point.

and

- First point.
- Second point.
- g a ballot Third point.

In the following example, more and more items become "checked" from slide to slide:

g a ballot First point.

- Second point.
- ► Third point.

In the following example, more and more items become "checked" from slide to slide:

g a ballot First point.

g a ballot Second point.

► Third point.

In the following example, more and more items become "checked"from slide to slide:

g a ballot First point.

g a ballot Second point.

g a ballot Third point.

In the following example, more and more items become "checked"from slide to slide:

g a ballot First point.

g a ballot Second point.

g a ballot Third point.

Uncovering Tagged Formulas Piecewise

$$A = B \tag{1}$$

Uncovering Tagged Formulas Piecewise

$$A = B \tag{1}$$
$$= C \tag{2}$$

$$=C$$
 (2)

Uncovering Tagged Formulas Piecewise

$$A = B \tag{1}$$

$$=C \tag{2}$$

$$= D \tag{3}$$

Uncovering a Table Rowwise

Class	Α	В	С	D
Χ	1	2	3	4

Uncovering a Table Rowwise

Class	Α	В	С	D
Χ	1	2	3	4
Υ	3	4	5	6

Uncovering a Table Rowwise

Class	Α	В	С	D
Χ	1	2	3	4
Υ	3	4	5	6
Z	5	6	7	8

Class	Α
Χ	1
Υ	3
Z	5

Class	Α	В
Χ	1	2
Υ	3	4
Z	5	6

Class	Α	В	С
Χ	1	2	3
Υ	3	4	5
Z	5	6	7

Class	Α	В	С	D
Χ	1	2	3	4
Υ	3	4	5	6
Z	5	6	7	8

Teil III

Building a Presentation

Contents

► Shown from first slide on.

- Shown from first slide on.
- Shown from second slide on.
 - Shown from second slide on.

- Shown from first slide on.
- Shown from second slide on.
 - Shown from second slide on.
 - Shown from third slide on.
- Shown from third slide on.

- ▶ Shown from first slide on.
- Shown from second slide on.
 - Shown from second slide on.
 - Shown from third slide on.
- Shown from third slide on.
- Shown from fourth slide on.

Shown from fourth slide on.

- Shown from first slide on.
- Shown from second slide on.
 - Shown from second slide on.
 - Shown from third slide on.
- Shown from third slide on.
- Shown from fourth slide on.

- Shown from first slide on.
- Shown from fifth slide on.

This line is bold on all three slides. This line is bold only on the second slide. This line is bold only on the third slide.

This line is bold on all three slides. This line is bold only on the second slide. This line is bold only on the third slide.

This line is bold on all three slides. This line is bold only on the second slide. **This line is bold only on the third slide.**

This line is inserted only on slide 1. Matthias Pospiech beamer examples This line is inserted only on slide 2. Matthias Pospiech beamer examples Shown on first slide.

Shown on all slides.

Shown on first slide. Shown on second and third slide.

Still shown on the second and third slide.

Shown on all slides.

Shown on first slide. Shown on second and third slide.

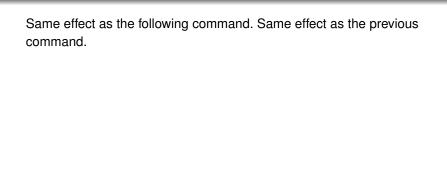
Still shown on the second and third slide.

Shown on all slides.

Shown on first slide.

Shown from slide 4 on.

Shown from slide 4 on. Shown on all slides.



Same effect as the following command. Same effect as the previous command. $\label{eq:same_same}$

Same effect as the following command. Same effect as the previous command.

Shown on 1, 2 Shown on 1, 2, 4

Shown on 1, 2 Shown on 1, 2, 4

Shown on 3, 4 Shown on 3, 5

Shown on 3, 4 Shown on 1, 2, 4

Shown 5, 6, 7, ... Shown on 3, 5

- First item.
- Second item.
- ► Third item.
- ► Fourth item.

- First item.
- ▶ Second item.
- ► Third item.
- ► Fourth item.

- First item.
- ► Second item.
- ► Third item.
- ► Fourth item.

- First item.
- ► Second item.
- ► Third item.
- ► Fourth item.

The first and main point.

- 1 The first and main point.
- The second point.

- 0. A zeroth point, shown at the very end.
- 1 The first and main point.
- The second point.

A Theorem on Infinite Sets

Theorem

There exists an infinite set.

A Theorem on Infinite Sets

Theorem

There exists an infinite set.

Example

The set of natural numbers is infinite.

A Theorem on Infinite Sets

Theorem

There exists an infinite set.

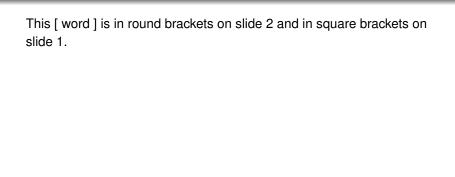
Beweis.

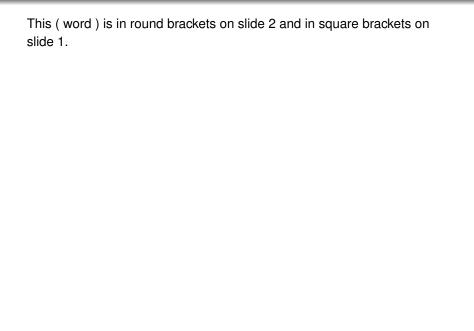
This follows from the axiom of infinity.

Example

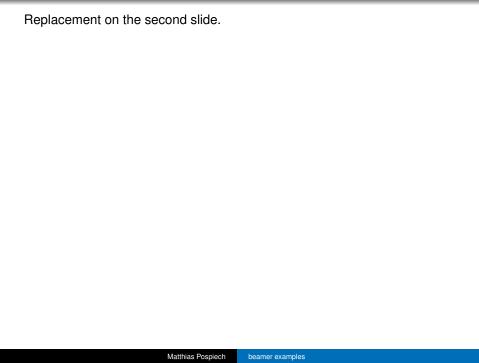
The set of natural numbers is infinite.

This line is always shown. Matthias Pospiech beamer examples This line is always shown. This line is inserted on slide 2. Matthias Pospiech beamer examples



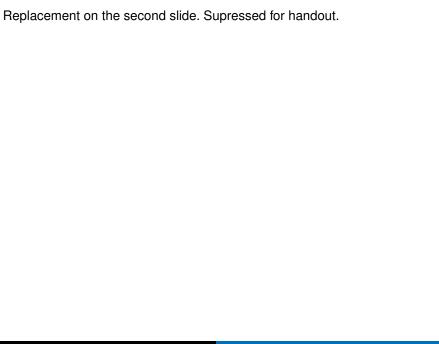


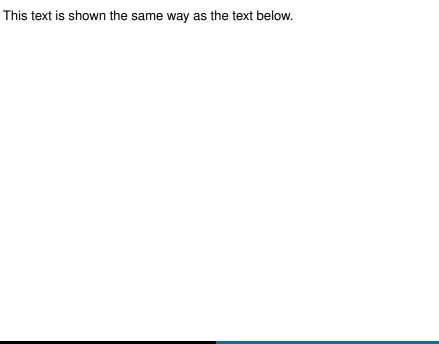
Some text for the first slide. Possibly several lines long.



Some text for the first slide.

Possibly several lines long.





Apple

- ApplePeach

- Apple
- Peach
- ► Plum

- Apple
- Peach
- ► Plum
- Orange

- Apple
- Peach
- ► Plum
- Orange
- ► Apple

- Apple
- ► Peach
- ► Plum
- Orange
- Apple
- ► Peach

- Apple
- ► Peach
- ► Plum
- Orange
- Apple
- Peach
- ► Plum

- Apple
- ► Peach
- ► Plum
- Orange
- Apple
- Peach
- ► Plum
- ► Orange

- Apple
- ► Peach
- ► Plum
- Orange
- Apple
- Peach
- ► Plum
- Orange
- ► This is important.

- Apple
- Peach
- ► Plum
- Orange
- Apple
- Peach
- Plum
- Orange
- ▶ This is important.
- We want to highlight this and this.

- Apple
- Peach
- ► Plum
- Orange
- Apple
- Peach
- Plum
- Orange
- ► This is important.
- We want to highlight this and this.
- What is the matrix?

First item.

► Jump to second slide

- First item.
- Second item.

▶ Jump to second slide

- First item.
- ▶ Second item.
- ► Third item.

▶ Jump to second slide

First item.

► Jump to second slide

- First item.
- Second item.

▶ Jump to second slide

- First item.
- ▶ Second item.
- ► Third item.

▶ Jump to second slide

Theorem

...

→ Skip proof

Theorem	
Beweis.	

1 A first one,

- A first one,
- 2 a second one with a bunch of subpoints,
 - first subpoint. (Only shown from second slide on!).

- A first one,
- 2 a second one with a bunch of subpoints,
 - first subpoint. (Only shown from second slide on!).
 - second subpoint added on third slide.

- A first one,
- 2 a second one with a bunch of subpoints,
 - first subpoint. (Only shown from second slide on!).
 - second subpoint added on third slide.
 - third subpoint added on fourth slide.

- A first one,
- 2 a second one with a bunch of subpoints,
 - first subpoint. (Only shown from second slide on!).
 - second subpoint added on third slide.
 - third subpoint added on fourth slide.
- 3 and a third one.

► This is shown from the first slide on.

▶ This is shown from the first slide on.

- ▶ This is shown from the first slide on.
- ▶ This is shown from the second slide on.
- ▶ This is shown from the first slide on.

- ▶ This is shown from the first slide on.
- ▶ This is shown from the second slide on.
- This is shown from the third slide on.
- ▶ This is shown from the first slide on.

- ▶ This is shown from the first slide on.
- ▶ This is shown from the second slide on.
- This is shown from the third slide on.
- This is shown from the first slide on.
- This is shown from the fourth slide on.

short Some text.

short Some text.

longest label Some text.

short Some text.

longest label Some text.

long label Some text.

Definition

A set consists of elements.

Wrong Theorem

1 = 2.

Definition

A set consists of elements.

Wrong Theorem

1 = 2.

Example

The set $\{1,2,3,5\}$ has four elements.

A Theorem on Infinite Sets

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There exists an infinite set.

A Theorem on Infinite Sets

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Beweis.

This follows from the axiom of infinity.

A Theorem on Infinite Sets

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There exists an infinite set.

Beweis.

This follows from the axiom of infinity.

Example (Natural Numbers)

The set of natural numbers is infinite.

beamer examples

Matthias Pospiech

Typesetting a postit:

Place me somewhere!

Theorem

A = B.

Two lines.

One line (but aligned).

anomations only work in full screen mode in Acrobat Reader!

Flying Theorems (You Really Shouldn't!)

Theorem

This theorem flies out.

Theorem

This theorem flies out.

Theorem

This theorem flies out.

neorem

nis theorem flies out.

orem

theorem flies out.

in.

em

eorem flies out.

es in.

rem flies out.

flies in.

m flies out.

m flies in.

flies out.

rem flies in.

es out.

em

eorem flies in.

out.

orem

theorem flies in.

16.

neorem

nis theorem flies in.

Theorem

This theorem flies in.

Theorem

This theorem flies in.

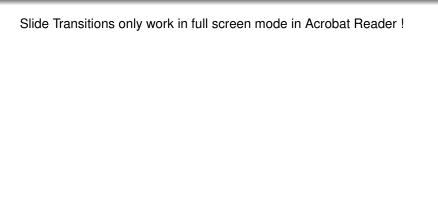
Theorem

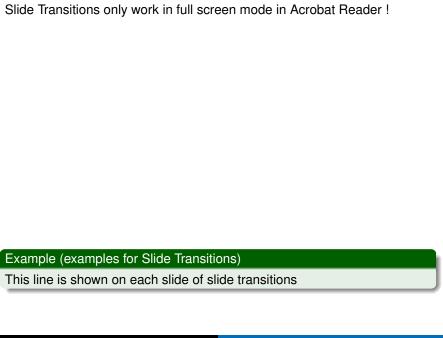
This theorem flies in.

Example (examples for Slide Transitions)

Example (examples for Slide Transitions)

Example (examples for Slide Transitions)

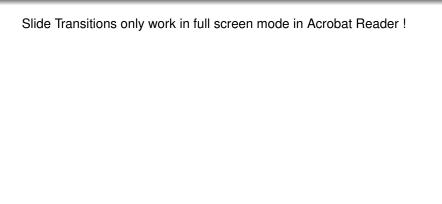


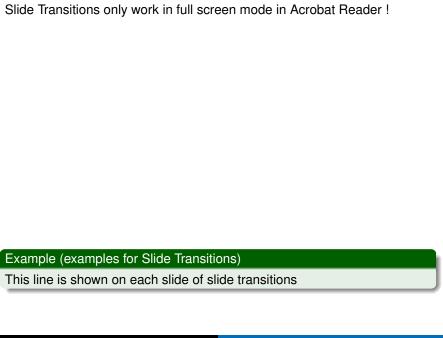


Example (examples for Slide Transitions)

Example (examples for Slide Transitions)

Example (examples for Slide Transitions)





Example (examples for Slide Transitions)

Example (examples for Slide Transitions)

► Eggs

- Eggs
- Plants

- Eggs
- Plants
- Animals



[Goldbach, 1742] Christian Goldbach.

A problem we should try to solve before the ISPN '43 deadline, Letter to Leonhard Euler, 1742.