Theoretic

Contents

1 Summary

This package provides opinionated functions to create theorems and similar environments.

```
#theorem[This is a theorem.]
#proof[
  Ends with Equation? No Problem:
  $ norm(x) = sqrt( sum_(k = 1)^d x_k ) . $
]
#theorem(title: "Foo", label: <thm:foo>)[
  This is a named theorem.
]
#proof(title: [@thm:foo[-]])[
  - Ends with a list or enum? Easy.
]
```

Theorem 1.1 This is a theorem.

Proof. Ends with Equation? No Problem:

$$\|x\| = \sqrt{\sum_{k=1}^{d} x_k}. \qquad \square$$

Theorem 1.2 (Foo) This is a named theorem.

Proof of Theorem 1.2.
- Ends with a list or enum? Easy. □

1.1 Setup

Put the following at the top of your document:

```
#import "@preview/theoretic:0.2.0" as theoretic: theorem, proof, qed
#show ref: theoretic.show-ref // Otherwise, references won't work.

// set up your needed presets
#let corollary = theorem.with(kind: "corollary", supplement: "Corollary")
#let example = theorem.with(kind: "example", supplement: "Example", number: none)
// ..etc
```

See `#theoretic.theorem()` (Section A.10) for a detailed description of customization options.

2 Features

- Except for `#show ref: theoretic.show-ref`, no "setup" is necessary. All configuration is achieved via parameters on the `#theoretic.theorem()` function. Use `theorem.with(..)` for your preset needs. → `#theoretic.theorem()`

- Automatic numbering. If your headings are numbered, it will use top-level heading numbers as the first component, otherwise it will simply number your theorems starting with Theorem 1.

```
#theorem(number: "!!")[
  Number can be overridden per-theorem.
]
#theorem(number: 400)[
  If a `number` is passed (as opposed to a string or
content),
]
#theorem[
  ...subsequent theorems will pick it up.
]
```

Theorem !! Number can be overridden per-theorem.

Theorem 2.400 If a `number` is passed (as opposed to a string or content),

Theorem 2.401 ...subsequent theorems will pick it up.

- Flexible References via specific supplements. ⟶ `#theoretic.show-ref()`

```
@thm:foo vs @thm:foo[-] vs @thm:foo[--] vs @thm:foo[!]
vs @thm:foo[!!] vs @thm:foo[!!!] vs @thm:foo[?] vs
@thm:foo[Statement]
```

Theorem 1.2 (Foo) vs Theorem 1.2 vs 1.2 vs Foo (Theorem 1.2) vs Foo (1.2) vs Foo vs Theorem vs Statement 1.2 (Foo)

- Custom outlines: Outline for headings *and/or* theorems. ⟶ `#theoretic.toc()`
  - Filter for specific kinds of theorem to create e.g. a list of definitions.
  - Optionally sorted alphabetically!
  - Theorems can have a different title for outlines (`theorem(toctitle: ..)`) and can even have multiple entries in a sorted outline.
  - Highly customizable! ⟶ `#theoretic.toc-entry()`
    - (And this customization can be reused for regular outlines) ⟶ `#theoretic.show-entry-as()`
- Exercise solutions: ⟶ `#theoretic.solutions()`
  - Every theorem environment accepts a second positional argument, which gets used as the solution.
  - Solutions section automatically hides itself if there are no solutions to show.

```
#theorem(kind: "exercise", supplement: "Exercise")[
  Go look for the solution of this exercise at the end
of this document.
][
  // no cheating! //
]
```

Exercise 2.402 Go look for the solution of this exercise at the end of this document.[1]

- Automatic QED placement! ⟶ `#theoretic.proof()` & `#theoretic.qed()`

In most cases, it should place the QED symbol appropriately automatically:

```
#proof[This is a proof. $x=y$]
#proof[
  This is a proof.
  $ x = y $
]
#proof[
  #set math.equation(numbering: "(1)")
  This is a proof.
  $ x = y $
]
```

Proof. This is a proof. $x = y$ □

Proof. This is a proof.

$$x = y \qquad \square$$

Proof. This is a proof.

$$x = y \tag{1}$$

□

```
#proof[
  This is a proof.
  - #lorem(3)
]
```

[1]Solution in Appendix

```
]
#proof[
  This is a proof.
  - #lorem(3) $ x = y $
]
#proof[
  This is a proof.
  + #lorem(3)
    + #lorem(3)
      + #lorem(3)
        + #lorem(3)
]
```

Proof. This is a proof.
- Lorem ipsum dolor. □

Proof. This is a proof.
- Lorem ipsum dolor.

$$x = y \qquad \square$$

Proof. This is a proof.
1. Lorem ipsum dolor.
   1. Lorem ipsum dolor.
      1. Lorem ipsum dolor.
         1. Lorem ipsum dolor. □

Specifically, it works for lists, enums, and unnumbered block equations, which may be nested. If your proof ends wit some other block, you should might want to place a `#qed()` manually. For proper alignment with a block equation, use

```
#set math.equation(numbering: (..) => {qed()}, number-align: bottom)
```

placed directly in front of the equation.

- Any theorem can be restated. ⟶ `#theoretic.restate()`

```
theoretic.restate(<thm:foo>)
// the prefix links to the original
```

Theorem 1.2 (Foo) This is a named theorem.

3 Examples

Example 3.1 (A complicated example showing some configuration possibilities)

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magnam aliquam quaerat.

Theorem 1 Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed.

Proof of Theorem 1.

1. Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magnam. *QED.*

Theorem 2 Name Lorem ipsum dolor sit amet, consectetur.

Example 3 *Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.*

Example 4 (Named Example) *To avoid having examples and such show up in the toc, use the `toc.exclude` parameter.*

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magnam aliquam quaerat.

```
#set text(font: "Besley*", size: 9pt)
#let theorem = theorem.with(
  fmt-prefix: (s, n, t) => {
    text(font: "Besley* Narrow Semi")[#s #n]
    if t!= none {
      h(2pt)
      box(fill: oklch(70%, 0.17, 307.4deg, 20%), outset: (y: 4pt), inset: (x: 2pt), radius: 2pt, text(fill:
oklch(44.67%, 0.15, 307.4deg), font: "Besley* Semi", t))
    }
    h(1em)
  },
  block-args: (
    stroke: (left: 0.5pt + oklch(44.67%, 0.15, 307.4deg)),
    outset: (left: 4pt, right: 0pt, y: 4pt),
  ),
)
#let ex = theorem.with(
  kind: "example",
  supplement: "Example",
  fmt-prefix: (s, n, t) => {
    text(font: "Besley*", stretch: 85%)[#s #n]
    if t!= none [ (#t)]
    h(1em)
  },
  fmt-body: (b, _) => { emph(b) },
)
#let qed = qed.with(suffix: smallcaps[#h(1fr)_qed._])
#let proof = proof.with(fmt-suffix: qed.with(force: false))

#lorem(20)
#theorem(label: <e.g>)[#lorem(9)]
#proof(title: [@e.g])[+ #lorem(18)]
#theorem(title: "Name")[#lorem(6)]
#ex[#lorem(10)]
#ex(title: "Named Example")[
  To avoid having examples and such show up in the toc, use the `toc.exclude` parameter.
]
#lorem(20)
```

A Detailed Documentation of all Exported Symbols

A.1 fmt-body

Function to format the body

Default value of `theorem.fmt-body`.

Parameters

```
fmt-body(⟨body⟩: content , ⟨solution⟩: content ) → content
```

⟨body⟩ `content` Positional Theorem content.

⟨solution⟩ `content` Positional

A.2 fmt-prefix

Function to run at beginning of theorem.

Default value of `theorem.fmt-prefix`.

```
#fmt-prefix([Theorem], [1.34], none)...

#fmt-prefix([Theorem], [1.34], [Pythagoras])...
```

Theorem 1.34 …

Theorem 1.34 (Pythagoras) …

Parameters

```
fmt-prefix(⟨supplement⟩: content , ⟨number⟩: content  none , ⟨title⟩: content  none ) → content
```

A.3 proof

This is just `theorem()` with different defaults.

```
#proof[#lorem(5)]
#proof(title: [@pythagoras[!]])[#lorem(6)]
```

Proof. Lorem ipsum dolor sit amet. □

Proof of Pythagoras (Theorem A.3). Lorem ipsum dolor sit amet, consectetur. □

Parameters

```
proof(
  kind: content ,
  supplement: content ,
  number: string ,
  fmt-prefix: function ,
  fmt-suffix: function ,
  ⟨..args⟩: arguments
) → content
```

kind: `"proof"` `content`

supplement: `"Proof"` `content`

number: `none` `string`

fmt-prefix: `proof-fmt-prefix` `function` `fmt-suffix: qed.with(force: false)` `function`

`⟨..args⟩` `arguments` Positional Same as for `theorem()`.

A.4 proof-fmt-prefix

Function to run at beginning of proof.

Default value of `proof.fmt-prefix`.

```
#proof-fmt-prefix([Proof], none, none)...

#proof-fmt-prefix([Proof], none, [@pythagoras])...
```

Proof. ...

Proof of Theorem A.3 (Pythagoras). ...

Parameters

```
proof-fmt-prefix(⟨supplement⟩: content, ⟨number⟩: content none, ⟨title⟩: content none) → content
```

A.5 qed

Place a QED mark and clear the `_thm_needs_qed` flag, so that the theorem environment itself won't place one.

See `proof.fmt-suffix`.

Parameters

```
qed(suffix: content, force: boolean) → content
```

`force: true` `boolean` Whether to place suffix no matter the `_thm_needs_qed` flag.

A.6 restate

Re-state a theorem.

It will reuse the original kind, supplement, number, title, and body. It will *not* re-emit the solution or label, and it will use `toctitle: none` to avoid duplicate toc entries.

```
#let proposition = theorem.with(
  kind: "proposition",
  supplement: "Proposition",
)
#proposition(title: "Funky!", label: <funky>)[Blah
_blah_ blah.]
Restated:
#restate("funky")
Restated with customizations:
#restate(<funky>, fmt-body: (b, s) => { text(fill: red,
{b;s}) })
```

Proposition A.1 (Funky!) Blah *blah* blah.

Restated:

Proposition A.1 (Funky!) Blah *blah* blah.

Restated with customizations:

Proposition A.1 (Funky!) Blah *blah* blah.

Parameters

```
restate(⟨label⟩: label string, ⟨..args⟩) → content
```

`⟨label⟩` `label` or `string` Positional Label of the theorem to restate.

`⟨..args⟩` Positional

Override arguments for the theorem function.

(Setting body, solution, kind, supplement, number, title or toctitle here is not recommended.)

A.7 show-entry-as

Helper function to adapt actual outlines to look the same as those made with `toc()`. This is useful if you want to have e.g. a list of figures and a list of definitons adn want them to share their style.

Note: Fot typst versions <= 0.12, this function is a bit “hacky” and might not always work. (It deconstructs the `outline.entry` based on heuristics.)

```
#import theoretic: show-entry-as, toc-entry

#outline(target: figure, title: [Typst Default])

#show outline.entry: show-entry-as(toc-entry.with(hanging-indent: 60pt, /*...*/))
#outline(target: figure, title: [Using `theoretic.toc-entry`])

#figure(
  caption: [Example Figure],
  block(height: 2em, width: 100%, fill: gradient.linear(..color.map.viridis))
)
```

Typst Default

Using `theoretic.toc-entry`

Figure 1: Example Figure

Parameters

`show-entry-as(⟨toc-entry⟩: function )`

`⟨toc-entry⟩`   `function`   Positional

Customize `toc-entry()` used.

Expects a function taking five positional arguments (level, target, prefix, body, page).

A.8 show-ref

Show-rule-function to be able to `@` labelled theorems.

Use via `` `#show ref: show-ref` `` at the beginning of your document.

```
#show ref: theoretic.show-ref
#theorem(label: <fact>, supplement: "Fact")[#lorem(2)]
#theorem(label: <pythagoras>, title: "Pythagoras")
[#lorem(2)]
#theorem(label: <zl>, title: "Only Named", number: none)
[#lorem(2)]
#theorem(label: <y>, number: "Y")[#lorem(2)]
```

```
#theorem(label: "5", number: none)[#lorem(2)]

As a consequence of @fact and @pythagoras[!!]...
```

Fact A.2 Lorem ipsum.

Theorem A.3 (Pythagoras) Lorem ipsum.

Theorem (Only Named) Lorem ipsum.

Theorem Y Lorem ipsum.

Theorem Lorem ipsum.

As a consequence of Fact A.2 and Pythagoras (A.3)…

The reference can be controlled via the supplement passed:

	Both	Without Title	Without Number	Neither
`@ref` (Full)	Theorem A.3 (Pythagoras)	Fact A.2 / Theorem Y	Theorem (Only Named)	Theorem
`@ref[-]` (Compact)	Theorem A.3	Fact A.2 / Theorem Y	Theorem (Only Named)	Theorem
`@ref[--]` (Number)	A.3	A.2 / Y	(Only Named)	Theorem
`@ref[!]` (Inverted)	Pythagoras (Theorem A.3)	Fact A.2 / Theorem Y	Only Named (Theorem)	Theorem
`@ref[!!]` (Compact Inverted)	Pythagoras (A.3)	Fact A.2 / Theorem Y	Only Named	Theorem
`@ref[!!!]` (Name)	Pythagoras	Fact A.2 / Theorem Y	Only Named	Theorem
`@ref[?]` (Kind)	Theorem	Fact / Theorem	Theorem	Theorem
`@ref[Custom]` (Custom Supplement)	Custom A.3 (Pythagoras)	Custom A.2 / Custom Y	Custom (Only Named)	Custom

Note: the fact that references and links in this document are underlined in gray is achieved with a separate `@show link: it => underline(..)` rule, and not because of this function.

Parameters

`show-ref(⟨it⟩: ref )`

A.9 solutions

List all solutions, if any.

See Section B for how it looks. Currently not customizable, working on it.

Parameters

`solutions(title: content ) → content`

`title: "Solutions"` `content` Title/heading to use.

A.10 theorem

Theorem Environment

```
#set heading(numbering: none)

#theorem[If the headings are not numbered, theorem
numbering starts at 1.]

= Heading
```

```
#theorem(title: "Pythagoras")[
  Given a right-angled triangle, the length
  of the hypothenuse squared is equal to the
  sum of the squares of the remainig sides'
  lengths.
]
```

Theorem 1 If the headings are not numbered, theorem numbering starts at 1.

Heading

Theorem 2 (Pythagoras) Given a right-angled triangle, the length of the hypothenuse squared is equal to the sum of the squares of the remainig sides' lengths.

Parameters

```
theorem(
  fmt-prefix: function ,
  fmt-body: function ,
  fmt-suffix: function none ,
  block-args: dict ,
  kind: string ,
  supplement: content ,
  number: auto none integer content ,
  title: none content ,
  toctitle: auto content array ,
  label: label string ,
  ⟨body⟩: content ,
  ⟨..solution⟩: content
) → content
```

fmt-prefix: fmt-prefix `function`

fmt-body: fmt-body `function`

fmt-suffix: none `function` or `none`

Will be called at the end of the theorem if `_thm_needs_qed` hasn't been cleared. (E.g. by `qed()`)

block-args: (:) `dict` Arguments to pass to the `#block[]` containing the theorem.

kind: "theorem" `string` Used for filtering e.g. when creating table of theorems.

supplement: "Theorem" `content`

What to label the environment.

It is recommended to keep `kind` and `supplement` matching (except for "subtypes", e.g. one might have the kind of "Example" and "Counter-Example" both as `"example"`)

number: auto `auto` or `none` or `integer` or `content`

- If `auto`, will continue numbering from last numbered theorem.
- If integer, it will contune the numbering of later theorems from the given number.
- If content, it is shown as-is, with no side-effects.

```
#let corollary = theorem.with(
  kind: "corollary",
  supplement: "Corollary")

#corollary[#lorem(2)]
```

```
#corollary(number: none)[Skip number]
#corollary[Resume numbering]

#corollary(number: "X")[Custom "number"]
#corollary[Resume numbering]

#corollary(number: 10)[Set number]
#corollary[Continue from set number]
```

Corollary A.3 Lorem ipsum.

Corollary Skip number

Corollary A.4 Resume numbering

Corollary X Custom “number”

Corollary A.5 Resume numbering

Corollary A.10 Set number

Corollary A.11 Continue from set number

title: `none` `none` or `content` Title of the Theorem. Usually shown after the number.

toctitle: `auto` `auto` or `content` or `array`

Title of the Theorem to be used in outlines.

- `auto` to use the `title`.
- `none` to hide it from the outlines.

If you pass an array, in *sorted* outlines (`toc.sort`) it will be split into multiple entries. All but the first one are marked as secondary.

```
#theorem(
  title: [A to Z],
  toctitle: ([AAAAA], [ZZZZZZ])
)[
  Compare how this appears in different outlines!
]
```

Theorem A.12 (A to Z) Compare how this appears in different outlines!

label: `none` `label` or `string`

Label (for references)

note: Simply putting a `<label>` after the `#theorem[]` does not work for referencing.

⟨body⟩ `content` Positional Theorem body

⟨..solution⟩ `content` Positional Optional Solution. Pass zero or one positional arguments here.

```
#theorem[#lorem(5)][This will show up wherever
`#theoretic.solutions()` is placed.]
```

Theorem A.13 Lorem ipsum dolor sit amet.[2]

See `solutions()`.

A.11 toc

Create an outline that includes named theorems.

Can be styled with show rules for `outline.entry()`. See the source code of this manual for an example.

[2]Solution in Appendix

```
#heading(outlined: false, level: 3)[
  Contents
]
#toc(depth: 1)
```

Contents

1 Summary 1
  Theorem 1.2 Foo 1
2 Features 1
3 Examples 4
  Example 3.1 A complicated example showing some configuration possibilities . 4
  Theorem 2 Name 4
  Example 4 Named Example 4
A Detailed Documentation of all Exported Symbols A1
  Proposition A.1 Funky! A2
  Theorem A.3 Pythagoras A4
  Theorem Only Named A4
  Theorem 2 Pythagoras A5
  Theorem A.12 AAAAA / ZZZZZZ A6
  Theorem A.14 Z A8
  Theorem A.15 A A8
B Solutions A10

Parameters

```
toc(
  depth: integer,
  exclude: list (string),
  level: integer auto,
  toc-entry: function,
  sort: bool
) → content
```

depth: 2   integer   Maximum depth of headings to conisder

exclude: ("proof", "solution")   list (string)   list of `theorem.kind`s to ignore.

```
#heading(outlined: false, level: 3)[
  Table of Examples
]
#toc(
  depth: 0,
  exclude: ("proof", "solution", "theorem")
)
```

Table of Examples

Example 3.1 A complicated example showing some configuration possibilities . . 4
Example 4 Named Example 4
Proposition A.1 Funky! A2

level: auto   integer or auto   Fake level to use for theorems. If `auto`, it will use `depth + 1`.

toc-entry: toc-entry   function

Customize `toc-entry()` used.

Expects a function taking five positional arguments (level, target, prefix, body, page).

sort: false   bool   Whether to sort the entries alphabetically.

Only respected if `depth` is 0.

If true, this will also split entries where `toctitle` is an array into separate entries.

```
#theorem(title: "Z")[Blah blah.]
#theorem(title: "A")[Blah blah.]
#heading(outlined: false, level: 3)[
  Sorted Table of Theorems
]
#set text(size: 9pt)
#toc(
  depth: 0,
  sort: true,
  toc-entry: toc-entry.with(hanging-indent: 60pt),
)
```

Theorem A.14 *(Z)* Blah blah.

Theorem A.15 *(A)* Blah blah.

Sorted Table of Theorems

Theorem A.15	A	A8
Example 3.1	A complicated example showing some configuration possibilities	4
Theorem A.12	AAAAA	A6
Theorem 1.2	Foo	1
Proposition A.1	Funky!	A2
Theorem 2	Name	4
Example 4	Named Example	4
Theorem	Only Named	A4
Theorem A.3	Pythagoras	A4
Theorem 2	Pythagoras	A5
Theorem A.14	Z	A8
Theorem A.12	(ZZZZZZ)	A6

A.12 toc-entry

Create a toc entry.

Pass this to `toc()` using `.with(..)` to customize the `fmt-` parameters used.

This is used because since Typst 0.13, it is no longer possible to call outline.entry outside of an actual ourline element, and one “cannot outline metadata”.

This manual uses

```
set par(justify: false)
let indents = (0pt, 15pt, 37pt)
let hang-indents = (15pt, 22pt, 54pt)
let text-styles = ((weight: 700), (size: 10pt), (size: 9pt, weight: 500), (size: 9pt, fill: luma(20%)), )
theoretic.toc(toc-entry: theoretic.toc-entry.with(
  indent: (level) => { indents.at(level - 1) },
  hanging-indent: (level) => { hang-indents.at(level - 1) },
  fmt-prefix: (prefix, level, _s) => {
    set text(..text-styles.at(level - 1), number-width: "tabular")
    prefix
    h(4pt)
  },
  fmt-body: (body, level, _s) => {
    set text(..text-styles.at(level - 1))
    body
  },
  fmt-fill: (level, _s) => {
    if level == 2 {
      set text(..text-styles.at(2))
      box(width: 1fr, align(right, repeat(gap: 9pt, justify: false, [.])))
    }
  },
  fmt-page: (page, level, _s) => {
    set text(..text-styles.at(level - 1), number-width: "tabular")
    box(width: 18pt, align(right, [#page]))
  },
  above: (level) => {
    if level == 1 {
      auto // paragraph spacing
    } else {
      7pt
    }
  },
  below: auto,
))
```

Parameters

```
toc-entry(
  ⟨level⟩: int,
  ⟨target⟩: location,
  ⟨prefix⟩: content none,
  ⟨body⟩: content,
  ⟨page⟩: content,
  secondary: boolean,
  indent: relative length function,
  hanging-indent: relative length function auto,
  above: relative length function,
  below: relative length function,
  fmt-prefix: function,
  fmt-body: function,
  fmt-fill: function,
  fmt-page: function
)
```

`secondary`: `false` `boolean`

This is true for entries where the toc-title is an array, the entry was split and this is *not* the first one (in order specified).

`indent`: `1em` `relative length` or `function` How much to indent each entry.

- If length, it will be multiplied with level - 1.
- If function, will be called with the level as argument.

`hanging-indent`: `auto` `relative length` or `function` or `auto`

How much more to indent subsequent lines (in addition th `toc-entry.indent`).

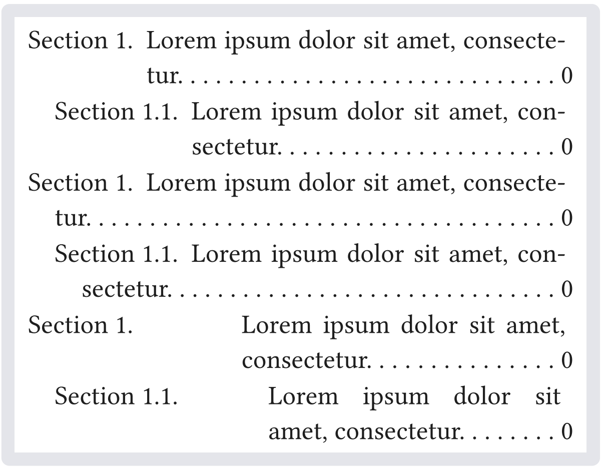
If the prefix is shorter than this, this will lead to a gap between prefix and body; If the prefix is longer, the body will start immediately after the prefix.

- If function, will be called with the level as argument.
- If `auto`, will use the width of the prefix

```
#let example-entry = theoretic.toc-entry.with(1, here(),
[Section 1.], lorem(6), [0])
#let example-entry-2 = theoretic.toc-entry.with(2,
here(), [Section 1.1.], lorem(6), [0])

// aligned with end of prefix
#example-entry(hanging-indent: auto)
#example-entry-2(hanging-indent: auto)

#example-entry(hanging-indent: 1em)
#example-entry-2(hanging-indent: 1em)
#example-entry(hanging-indent: 80pt)
#example-entry-2(hanging-indent: 80pt)
```



```
Section 1.  Lorem ipsum dolor sit amet, consecte-
            tur. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 0
  Section 1.1.  Lorem ipsum dolor sit amet, con-
                sectetur. . . . . . . . . . . . . . . . . . . . . . 0
Section 1.  Lorem ipsum dolor sit amet, consecte-
  tur. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 0
  Section 1.1.  Lorem ipsum dolor sit amet, con-
    sectetur. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 0
Section 1.          Lorem ipsum dolor sit amet,
                    consectetur. . . . . . . . . . . . . . . 0
  Section 1.1.          Lorem ipsum dolor sit
                        amet, consectetur. . . . . . . . 0
```

`above: 0.7em` `relative length` or `function` If function, will be called with the level as argument.

`below: 0.7em` `relative length` or `function` If function, will be called with the level as argument.

```
fmt-prefix: (prefix, level, secondary) => {
    if prefix != none {
      prefix
      h(0.5em, weak: false)
    }
  }   function
```

```
fmt-body: (body, level, secondary) => { if secondary [(#body) ] else [#body ] }   function
```

```
fmt-fill: (level, secondary) => { box(width: 1fr, repeat[.~]) }   function
```

```
fmt-page: (page, level, secondary) => { page }   function
```

A.13 thm-counter `counter`

Counts theorems.

In most cases, it is not neccesary to reset this manually, it will get updated accordingly if you pass an integer to `theorem.number`.

B Solutions

Solution of Exercise 2.402. Yay! you found it!

Solution of Theorem A.13. This will show up wherever `#theoretic.solutions()` is placed.