BeamerikZ class manual

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Setup

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4. Compile them with `pdflatex` (optimally twice).

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5. See the result.

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4. Compile them with `pdflatex` (optimally twice).
5. See the result.
6. Be happy*.

* Item **6** is optional.

Minimal working example

```
\documentclass{beamerikz}              % defines the document to be BeamerikZ

\begin{document}
\begin{bzFrame}                        % the only frame of that document
\bzOn{                                 % content to appear first
    \bzCenter{Welcome to \beamerikz!}  % a centred text
}
\end{bzFrame}
\end{document}
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}
\bzOn{                                 % content to appear second
    \bzCenter{Welcome again, nice to see you!}
    \bzCenter{Hope that you'll stay longer :)}
}
\end{bzFrame}
\end{document}
```

To add more content, create a new `\bzOn{...}` entry, as above.

Minimal working example

```
\documentclass{beamerikz}              % defines the document to be BeamerikZ

\begin{document}
\begin{bzFrame}                        % the first frame of that document
\bzOn{                                 % content to appear first
    \bzCenter{Welcome to \beamerikz!}  % a centred text
}
\bzOn{                                 % content to appear second
    \bzCenter{Welcome again, nice to see you!}
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\end{bzFrame}

\begin{bzFrame}                        % the second frame
\bzOn{                                 % content to appear first
    \bzCenter{Welcome again!}          % a centred text
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To add more content, create a new `\bzOn{...}` entry, as above.

Or add a new frame.

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```

To add more content, create a new `\bzOn{...}` entry, as above.

Or add a new frame.

Hint: To avoid problems, put all your content (like `\bzCenter{...}`) inside `\bzOn{...}` entries (or their variants)...

Content

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Use the following commands to draw your content into the frame:

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`\bzCenter{...}` for centred text

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`\bzLeft{...}` for text aligned next to the left edge

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`\bzRight{...}` for text aligned to the right

`\bzBox{...}` for content that exceeds the standard width of the slide and should wrap to another line (other commands may also allow that, see `bzM` below...)

Item and list

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There are two ways to present lists of items:

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2. `\bzList{...}` second...

Hint: `\bzEvalInt` later in the manual will help you manage `\bzL`

More content...

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Theorem (Authors)

`\bzTheorem{authors}{statement}` to state a theorem (the statement can take multiple lines if needed)

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The same syntax works for: **Lemma**, **Fact**, **Conjecture**, **Definition**, **Question**, **Problem**, **Proposition**, **Corollary**, **Exercise**, and **Example**.

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Proof

`\bzProof{...}` to provide a proof (again, it can be spread across multiple lines if needed)

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Finally use `\bzQed` to conclude a proof: ■

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`\bzLine` draws a line:

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The same suffixes with `bz` can be used for the standard content, e.g.:

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`\bzLeft[bzHL]{...}` gives a highlighted left-aligned text

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`\bzLeft[bzHL]{...}` gives a highlighted left-aligned text

`\bzCenter[bzHB]{...}`
gives a highlighted&boldfaced centred text

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`\bzLeft[bzHL]{...}` gives a highlighted left-aligned text

`\bzCenter[bzHB]{...}`
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`\bzRight[bzBO]{...}` **gives a boldfaced right-aligned text**

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Hint: styles also apply to `\bzBox{...}`, `\bzTheorem{...}{...}`, `\bzProof{...}`, etc

Ti*k*Z style

TikZ style

Each of the following commands (some are explained later):

`\bzLeft{...}`, `\bzText{...}`, `\bzItem{...}`, `\bzList{...}`,
`\bzRight{...}`, `\bzCenter{...}`, `\bzNext{...}`, `\bzPrev{...}`,
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accepts an additional optional first parameter `\bz____[...]{...}`.

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You can put any TikZ style (applicable to a node) there.

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The styles `bzBO`, `bzHL`, etc from the previous slide are examples of such styles.

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For instance

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\bzCenter[scale=1.5, draw, inner sep=1mm, ellipse]{egg}
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gives:

Titles, authors, references

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Control the footline of your frames using these macros (in the preamble):

```
\documentclass{beamerikz}              % defines the document to be BeamerikZ

\sBzTitle{My title}                    % sets the title of the presentation
\sBzAuthor{Me Mysef}                   % sets the author (or authors)

\begin{document}
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You may boldface your title: `\sBzTitle{\bf The Title}`

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You may boldface your title: `\sBzTitle{\bf The Title}`

Or underline the speaker: `\sBzAuthor{A. Guy, \underline{My Self}}`

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You may boldface your title: `\sBzTitle{\bf The Title}`

Or underline the speaker: `\sBzAuthor{A. Guy, \underline{My Self}}`

To refer to others' work, you may use:

`\bzNames{Reference, Relevance [2013]}`

(Reference, Relevance [2013])

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- `\bzCtext` used for text and drawings (here it's **bzBlack**)

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You can change each of these colours, by using (in the preamble):

```
\definecolor{mynewcolor}{RGB}{123,255,0}    % the RGB coordinates are between 0 and 255
\renewcommand{\bzCtext}{mynewcolor}
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To make your presentation look uniform, use these colours consequently:

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\bzCenter{\textcolor{\bzCname}{this is also red}}
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this is also red

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Hint: To choose your colours consistently, I recommend using:

https://coolors.co/

Plain frames

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\end{bzPlainFrame}
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```
\begin{bzPlainFrame}
...
\end{bzPlainFrame}
```

The content of such a frame is generated in the same way as for other frames:

```
\begin{bzPlainFrame}
\bzOn{
    \bzCenter{\textcolor{\bzCtitle}{\bzTitle}}

    \bzCenter{\bzAuthor}
}

\bzOn{
    \bzCenter{\bf READY?}
}
\end{bzPlainFrame}
```

Coordinates

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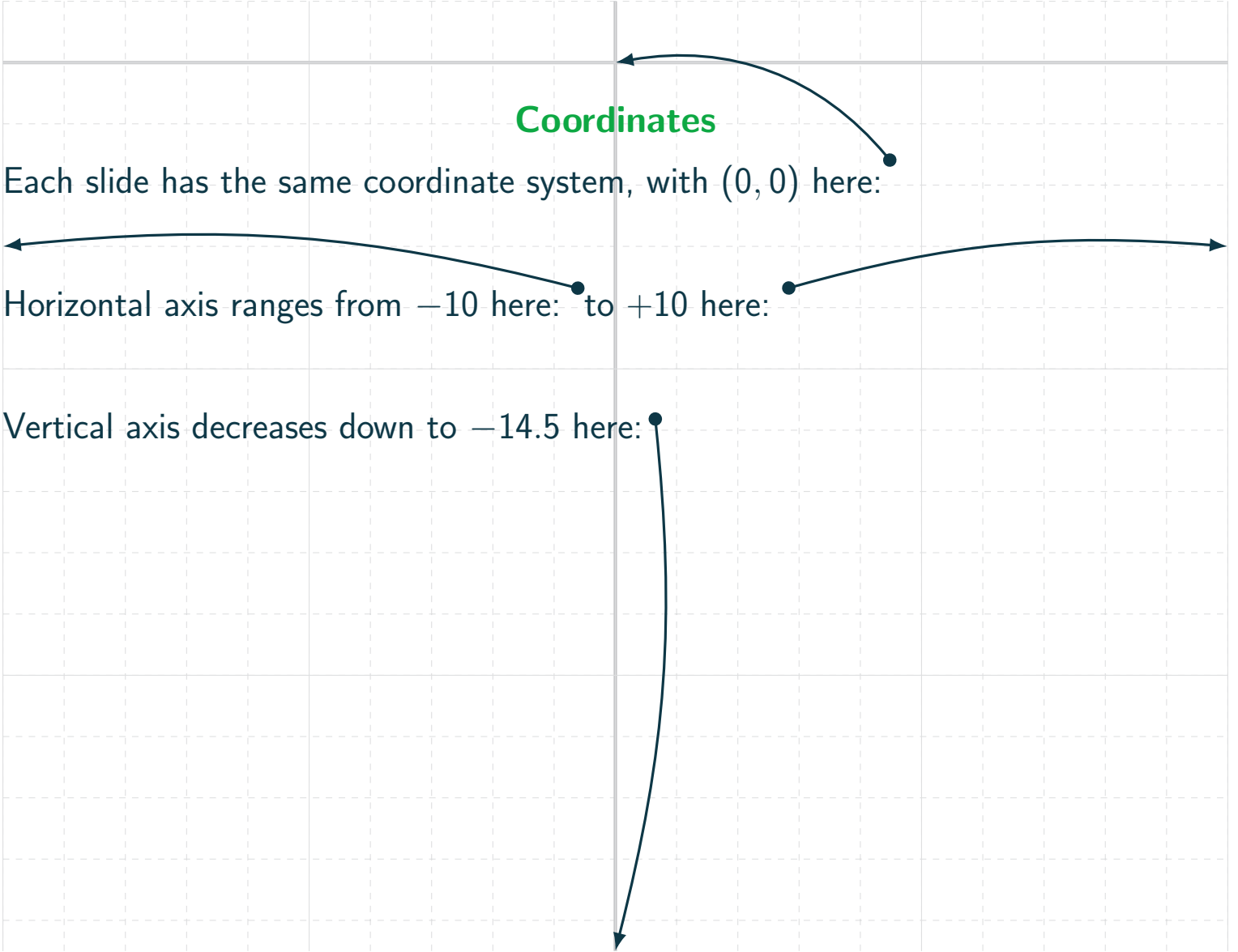
Vertical axis decreases down to -14.5 here:



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That means that the point $(4, -6)$ is located here:

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Hint: 1cm = 1unit of this coordinate system :)

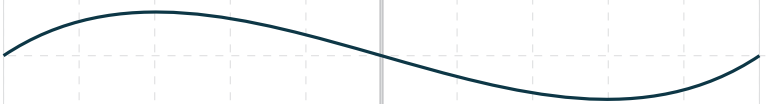
Hint: `\bzCoords` shows the coordinate system

Nodes

Nodes

You can use all the Ti*k*Z machinery you like:

```
\bzOn{
    \draw (-5, -3) .. controls ++(+3, +2) and ++(-3, -2) .. (+5, -3);
}
```



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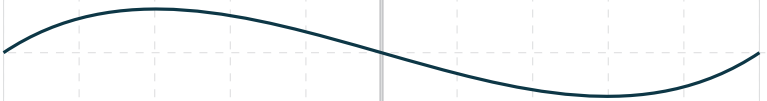

To write text, you may use styles bzR, bzC, and bzL:

```
\bzOn{
\node[bzL, draw] at (-8, -9) {aligns to left};
\node[bzC, draw] at (+0, -9) {aligns to centre};
\node[bzR, draw] at (+8, -9) {aligns to right};
}
```

aligns to left lies centrally aligns to right

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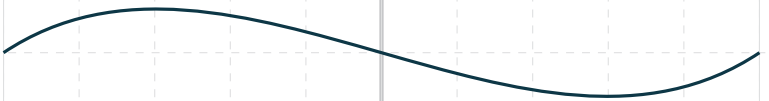

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}
```

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Hint: in fact `\bzLeft{...}`, `\bzCenter{...}`, ... are based on these styles!

Nodes

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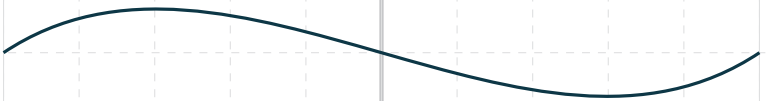

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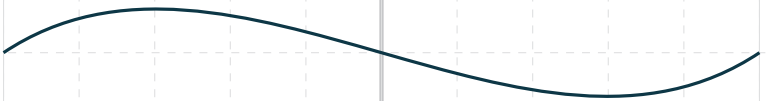

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}
```

aligns to left lies centrally aligns to right

What is important, is that the baseline of text is kept:

```
\bzOn{
    \node[bzL, draw] at (-8.0, -14) {car};
    \node[bzL, draw] at (-7.0, -14) {trunk};
    \node[bzL, draw] at (-5.0, -14) {yummy};
    \node[bzL, draw] at (-2.5, -14) {Tommy};
}
```

car trunk yummy Tommy

Underlayer

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```
\bzOn{
    \path[fill=bzRed] (5, -10) rectangle (9, -12);
}

\bzUnder{
    \bzOn{
        \path[fill=bzBlue] (6, -9) rectangle (8, -13);
    }
}
```

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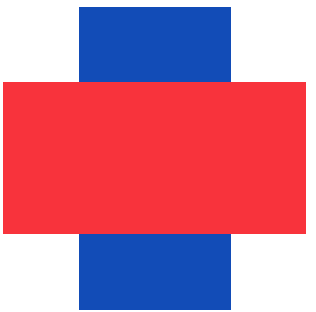

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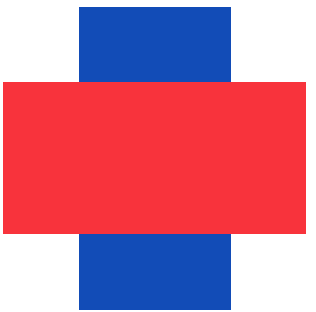
```

Hint: `\bzUnder{...}` must contain `\bzOn{...}`, not the other way round!



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`\zBzHStep` is equivalent to `\sBzHStep{1.0}`, i.e. it restores the value to 1.0.

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You should place **all** your content relatively to \bzH(!):

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\draw (-4, \bzH) rectangle (+4, \bzH-1);
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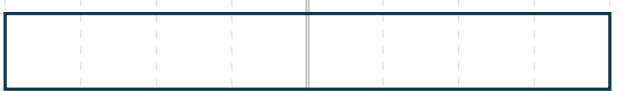

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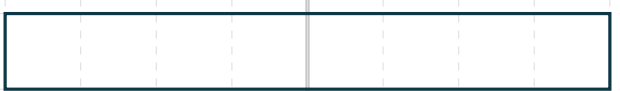

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To get some vertical space, use:

$\bzH = -9.0$

\iBzH

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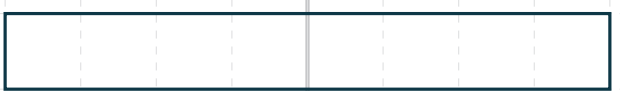

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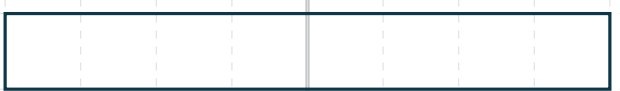

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\iBzH[0.8]

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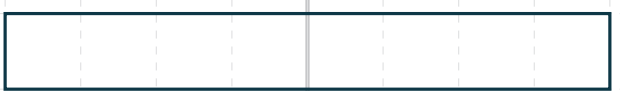

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All these commands accept arithmetic, like:

```
\newcommand{\x}{1.6}
\iBzH[(\x+1)*0.5+2]
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All these commands accept arithmetic, like:

```
\newcommand{\x}{1.6}
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```

Hint: you may put such commands both **inside** and **outside** of `\bzOn{...}`
(all the commands above the given one do affect it)

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and now $\texttt{\bzI} = 3.0$

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Available commands:

- \sBzI{5.0} — set the value of the counter

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Available commands:

- \sBzI{5.0} — set the value of the counter
- \iBzI — increase indent by 1 (+parametrised \iBzI[2.8])

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\bzText{...} is always 1 to the right (now \bzI = −10 again)

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- \sBzI{5.0} — set the value of the counter
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Hint: you may modify \bzI **outside** \bzOn{...}

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Multiline nodes — width

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By default, the width of the text is adjusted so that it spreads until the end of the working area $(-10, \ldots, +10)$ (or $(-13.0, \ldots, +13.0)$ in `wide` mode).

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Text centered via `\bzCenter{...}` and broken to new lines.

You can set your own width of text, by using `bzM=<num>` like here

```
\bzLeft[bzM=5.5, draw]{Text of width 5.5 with automatic line breaks}
```

Text of width 5.5 with automatic line breaks

Mathematics

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- To use displayed mathematics `\[...\]`, the option `bzM` is required:

```
\bzCenter[bzM]{\[\sum_{i=1}^n i=\frac{n\cdot(n+1)}{2}\]}
```

$$\sum_{i=1}^{n} i = \frac{n \cdot (n+1)}{2}$$

...but `\[...\]` introduces additional vertical space. **Better avoid it.**

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$$\sum_{i=1}^{n} i = \frac{n \cdot (n+1)}{2}$$

- It allows formatting as in `align*`:

```
\bzCenter{$\bzEq{
  x_0 &= x_1 = 0 &\quad\text{(1)}\\
  x_{n+2} &= x_{n+1}+x_n &\quad\text{(2)}
}$}
```

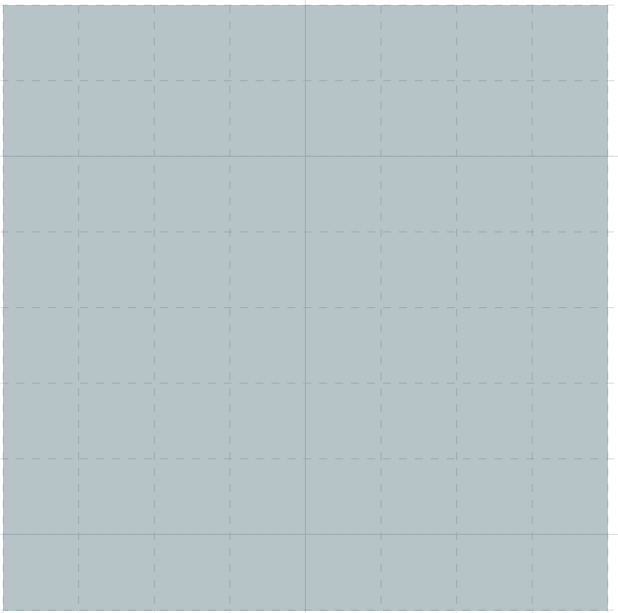
$$x_0 = x_1 = 0 \qquad (1)$$

$$x_{n+2} = x_{n+1} + x_n \qquad (2)$$

Graphics

Graphics

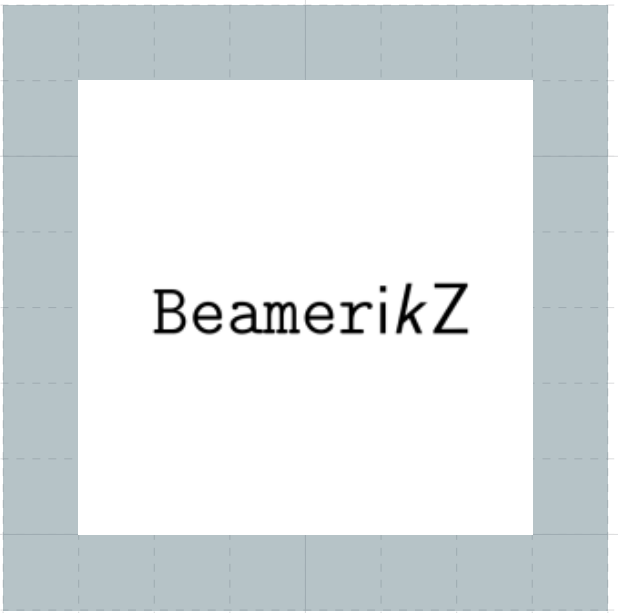
To include graphics, you may use:



Graphics

To include graphics, you may use:

```
\node[bzG] at (5,-7) {\includegraphics[width=6cm]{logo.png}};
```



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\node[bzG] at (5,-7) {\includegraphics[width=6cm]{logo.png}};
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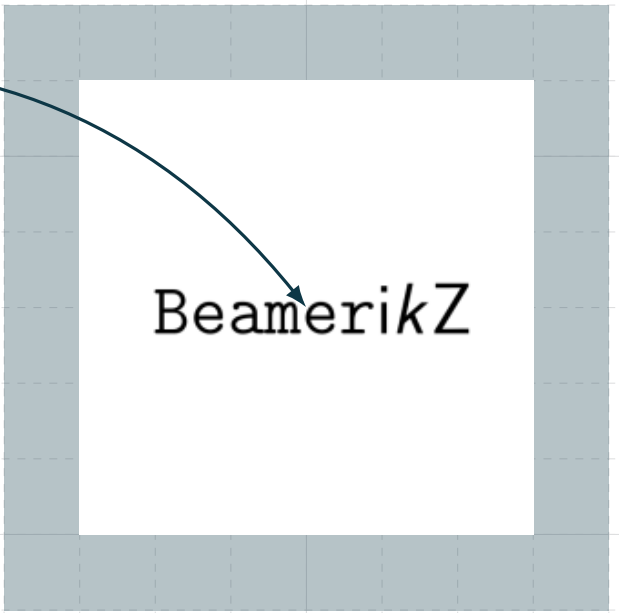
- The centre is at `(5,-7)`



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To include graphics, you may use:

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\node[bzG] at (5,-7) {\includegraphics[width=6cm]{logo.png}};
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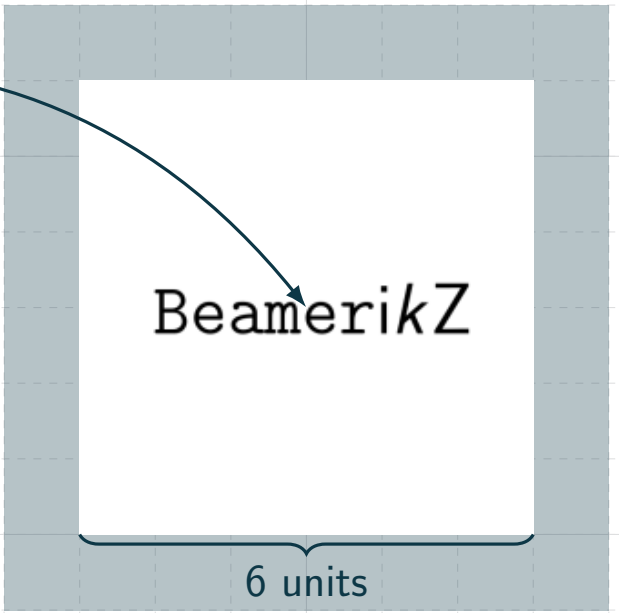
- The centre is at `(5,-7)`
- Width is `6cm` = 6 units



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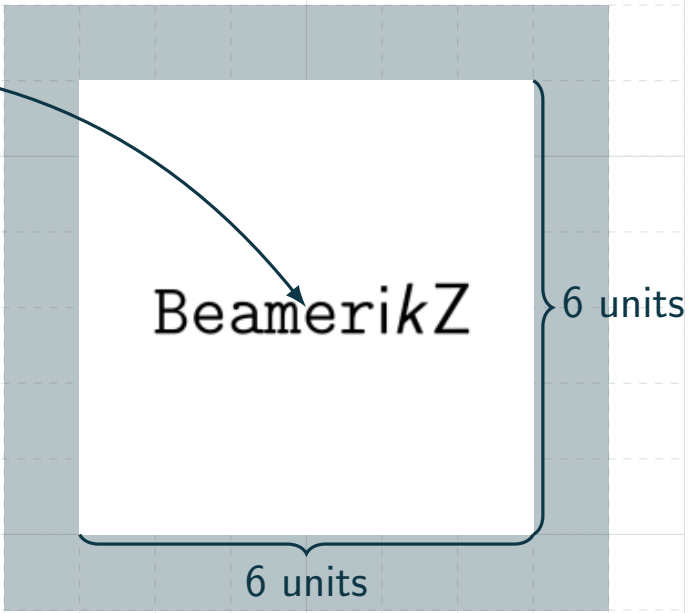
- The centre is at `(5,-7)`
- Width is `6cm` = 6 units
- Height is proportional to the ratio



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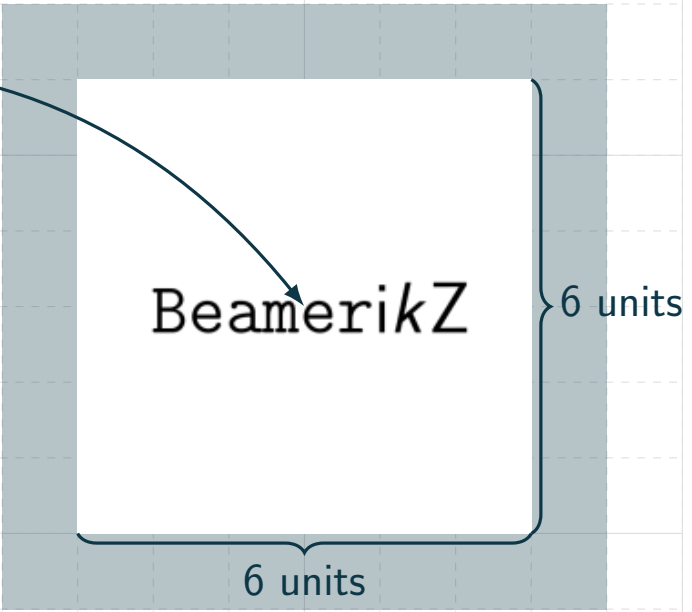
```

- The centre is at `(5,-7)`
- Width is `6cm` = 6 units
- Height is proportional to the ratio
- There are no margins or spacing



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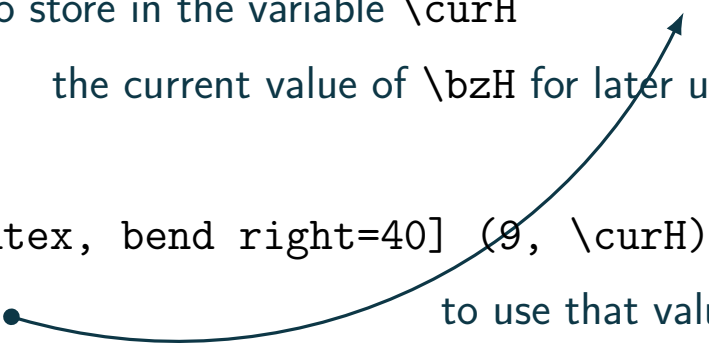
the current value of `\bzH` for later use!

And then use:

```
\draw (0, \bzH-1) edge[Circle-Latex, bend right=40] (9, \curH);
```

to use that value!



Arithmetic and scripting

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```
\newcommand{\putDot}[2]{
  \bzEval{\x}{#1}
  \bzEval{\r}{#2}
  \node[draw, circle, rotate=\r] at (\x, \bzH) {Hi!};
}

\bzOn{
  \foreach \i in {0,...,9} {
    \putDot{\bzI+2*\i+1}{\i*20}
  }
}
```

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Gives:

Hint: For readability, you can put your macros outside `bzFrame` environment

Slide counter — basics

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\bzS = 2

To control the flow of time within a frame, a counter \bzS is used.

Slide counter — basics

$\backslash bzS = 3$

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Each \bzOn{...} shows a new content, increasing \bzS.

Slide counter — basics

$\backslash bzS = 4$

To control the flow of time within a frame, a counter \bzS is used.

Each \bzOn{...} shows a new content, increasing \bzS.

\bzOne{...} shows its content for one slide and disappears.

Slide counter — basics

\bzS = 5

To control the flow of time within a frame, a counter \bzS is used.

Each \bzOn{...} shows a new content, increasing \bzS.

The next \bzOn{...} appears at the moment when \bzOne{...} disappears.

Slide counter — basics

\bzS = 6

To control the flow of time within a frame, a counter \bzS is used.

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The next \bzOn{...} appears at the moment when \bzOne{...} disappears.

\bzTwo{...} shows its content for two slides and disappears.

Slide counter — basics

\bzS = 7

To control the flow of time within a frame, a counter \bzS is used.

Each \bzOn{...} shows a new content, increasing \bzS.

The next \bzOn{...} appears at the moment when \bzOne{...} disappears.

\bzTwo{...} shows its content for two slides and disappears.

The next \bzOn{...} appears afterwards.

Slide counter — basics

\bzS = 8

To control the flow of time within a frame, a counter \bzS is used.

Each \bzOn{...} shows a new content, increasing \bzS.

The next \bzOn{...} appears at the moment when \bzOne{...} disappears.

The next \bzOn{...} appears afterwards.

And only the second \bzOn{...} appears when \bzTwo{...} disappears.

Slide counter — basics

\bzS = 9

To control the flow of time within a frame, a counter \bzS is used.

Each \bzOn{...} shows a new content, increasing \bzS.

The next \bzOn{...} appears at the moment when \bzOne{...} disappears.

The next \bzOn{...} appears afterwards.

And only the second \bzOn{...} appears when \bzTwo{...} disappears.

\bzOnly{...} appears for one slide and takes one more to disappear.

Slide counter — basics

\bzS = 10

To control the flow of time within a frame, a counter \bzS is used.

Each \bzOn{...} shows a new content, increasing \bzS.

The next \bzOn{...} appears at the moment when \bzOne{...} disappears.

The next \bzOn{...} appears afterwards.

And only the second \bzOn{...} appears when \bzTwo{...} disappears.

Slide counter — basics

\bzS = 11

To control the flow of time within a frame, a counter \bzS is used.

Each \bzOn{...} shows a new content, increasing \bzS.

The next \bzOn{...} appears at the moment when \bzOne{...} disappears.

The next \bzOn{...} appears afterwards.

And only the second \bzOn{...} appears when \bzTwo{...} disappears.

The next \bzOn{...} appears after one more click.

Slide counter — basics

\bzS = 12

To control the flow of time within a frame, a counter \bzS is used.

Each \bzOn{...} shows a new content, increasing \bzS.

The next \bzOn{...} appears at the moment when \bzOne{...} disappears.

The next \bzOn{...} appears afterwards.

And only the second \bzOn{...} appears when \bzTwo{...} disappears.

The next \bzOn{...} appears after one more click.

Hint: Some package options display the current value of \bzS, see

draft and brief later on

Slide counter — `\bzIn{from}{to}{...}` $\backslash bzS = 1$

Slide counter — `\bzIn{from}{to}{...}` `\bzS` = 2

Because of the order of drawing (or other reasons), you may need to manually handle when content (dis)appears.

Slide counter — \bzIn{from}{to}{...} \bzS = 3

Because of the order of drawing (or other reasons), you may need to manually handle when content (dis)appears.

First, use \bzEvalInt{\curS}{\bzS} to store the current value of \bzS.

Slide counter — `\bzIn{from}{to}{...}` `\bzS` = 4

Because of the order of drawing (or other reasons), you may need to manually handle when content (dis)appears.

First, use `\bzEvalInt{\curS}{\bzS}` to store the current value of `\bzS`.

Then, use `\bzIn{from}{to}{...}` to control when some content is visible.

Slide counter — \bzIn{from}{to}{...}

\bzS = 5

Because of the order of drawing (or other reasons), you may need to manually handle when content (dis)appears.

First, use \bzEvalInt{\curS}{\bzS} to store the current value of \bzS.

Then, use \bzIn{from}{to}{...} to control when some content is visible.

```
\bzIn{\curS+2}{\curS+7}{...}
```

\curS = 3

Rules:

Slide counter — \bzIn{from}{to}{...}

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Because of the order of drawing (or other reasons), you may need to manually handle when content (dis)appears.

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\bzIn{\curS+2}{\curS+7}{...}
```

\curS = 3

Rules:

1. If both arguments are equal, then the content lasts one slide.

Slide counter — \bzIn{from}{to}{...}

\bzS = 7

Because of the order of drawing (or other reasons), you may need to manually handle when content (dis)appears.

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Then, use \bzIn{from}{to}{...} to control when some content is visible.

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\curS = 3

Rules:

1. If both arguments are equal, then the content lasts one slide.
2. If the first argument is empty, it's visible from the beginning.

Slide counter — \bzIn{from}{to}{...} \bzS = 8

Because of the order of drawing (or other reasons), you may need to manually handle when content (dis)appears.

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Then, use \bzIn{from}{to}{...} to control when some content is visible.

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\bzIn{\curS+2}{\curS+7}{...}
```

\curS = 3

Rules:

1. If both arguments are equal, then the content lasts one slide.
2. If the first argument is empty, it's visible from the beginning.
3. If the second argument is empty, it's visible until the end of the frame.

Slide counter — \bzIn{from}{to}{...} \bzS = 9

Because of the order of drawing (or other reasons), you may need to manually handle when content (dis)appears.

First, use \bzEvalInt{\curS}{\bzS} to store the current value of \bzS.

Then, use \bzIn{from}{to}{...} to control when some content is visible.

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\bzIn{\curS+2}{\curS+7}{...}
```

\curS = 3

Rules:

1. If both arguments are equal, then the content lasts one slide.
2. If the first argument is empty, it's visible from the beginning.
3. If the second argument is empty, it's visible until the end of the frame.
4. You can do any (integer) arithmetic within the arguments.

Slide counter — \bzIn{from}{to}{...} \bzS = 10

Because of the order of drawing (or other reasons), you may need to manually handle when content (dis)appears.

First, use \bzEvalInt{\curS}{\bzS} to store the current value of \bzS.

Then, use \bzIn{from}{to}{...} to control when some content is visible.

```
\bzIn{\curS+2}{\curS+7}{...}
```

\curS = 3

Rules:

1. If both arguments are equal, then the content lasts one slide.
2. If the first argument is empty, it's visible from the beginning.
3. If the second argument is empty, it's visible until the end of the frame.
4. You can do any (integer) arithmetic within the arguments.
5. You can use \bzS within the arguments — it takes its current value.

Because of the order of drawing (or other reasons), you may need to manually handle when content (dis)appears.

First, use `\bzEvalInt{\curS}{\bzS}` to store the current value of `\bzS`.

Then, use `\bzIn{from}{to}{...}` to control when some content is visible.

Rules:

1. If both arguments are equal, then the content lasts one slide.
2. If the first argument is empty, it's visible from the beginning.
3. If the second argument is empty, it's visible until the end of the frame.
4. You can do any (integer) arithmetic within the arguments.
5. You can use `\bzS` within the arguments — it takes its current value.
6. `\bzIn{from}{to}{...}` does not modify `\bzS`.

Slide counter — \bzIn{from}{to}{...} \bzS = 12

Because of the order of drawing (or other reasons), you may need to manually handle when content (dis)appears.

First, use \bzEvalInt{\curS}{\bzS} to store the current value of \bzS.

Then, use \bzIn{from}{to}{...} to control when some content is visible.

Rules:

1. If both arguments are equal, then the content lasts one slide.
2. If the first argument is empty, it's visible from the beginning.
3. If the second argument is empty, it's visible until the end of the frame.
4. You can do any (integer) arithmetic within the arguments.
5. You can use \bzS within the arguments — it takes its current value.
6. \bzIn{from}{to}{...} does not modify \bzS.
7. You should ensure that from $\leq$ to.

Slide counter — \bzIn{from}{to}{...} \bzS = 13

Because of the order of drawing (or other reasons), you may need to manually handle when content (dis)appears.

First, use \bzEvalInt{\curS}{\bzS} to store the current value of \bzS.

Then, use \bzIn{from}{to}{...} to control when some content is visible.

Rules:

1. If both arguments are equal, then the content lasts one slide.
2. If the first argument is empty, it's visible from the beginning.
3. If the second argument is empty, it's visible until the end of the frame.
4. You can do any (integer) arithmetic within the arguments.
5. You can use \bzS within the arguments — it takes its current value.
6. \bzIn{from}{to}{...} does not modify \bzS.
7. You should ensure that from $\leq$ to.
8. \bzS starts with 1.

Slide counter — summary

Slide counter — summary

Available commands:

Slide counter — summary

Available commands:

- `\sBzS{4}` — set slide counter value

Slide counter — summary

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- `\iBzS` — increase slide counter by 1 (+parametrised `\iBzS[2]`)

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- `\sBzS{4}` — set slide counter value
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Slide counter — summary

Available commands:

- `\sBzS{4}` — set slide counter value
- `\iBzS` — increase slide counter by 1 (+parametrised `\iBzS[2]`)
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- `\zBzS` — reset `\bzS` to 1

Slide counter — summary

Available commands:

- `\sBzS{4}` — set slide counter value
- `\iBzS` — increase slide counter by 1 (+parametrised `\iBzS[2]`)
- `\dBzS` — decrease slide counter by 1 (+parametrised `\dBzS[1]`)
- `\zBzS` — reset `\bzS` to 1

Hint: if you increase `\bzS` using `\iBzS` without showing any more content, it will not make your slide last longer!

Slide counter — summary

Available commands:

- `\sBzS{4}` — set slide counter value
- `\iBzS` — increase slide counter by 1 (+parametrised `\iBzS[2]`)
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- `\zBzS` — reset `\bzS` to 1

Hint: if you increase `\bzS` using `\iBzS` without showing any more content, it will not make your slide last longer!

Hint: if possible, avoid guessing correct numbers for `\bzIn{from}{to}{...}`, use a variant of `\bzEvalInt{\curS}{\bzS}` instead!

Slide counter — summary

Available commands:

- `\sBzS{4}` — set slide counter value
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Hint: if you increase `\bzS` using `\iBzS` without showing any more content, it will not make your slide last longer!

Hint: if possible, avoid guessing correct numbers for `\bzIn{from}{to}{...}`, use a variant of `\bzEvalInt{\curS}{\bzS}` instead!

Hint: remember that the content overlays each other.

The order comes from the order of entries in the source file, not from the values of `\bzS`.

Named nodes

Named nodes

These commands create Ti*k*Z nodes:

`\bzLeft{...}`, `\bzText{...}`, `\bzItem{...}`, `\bzList{...}`,

`\bzCenter{...}`, `\bzRight{...}`, `\bzNext{...}`, `\bzBox{...}`.

Named nodes

Named nodes

You can append new content to the last node using `\bzNext{...}`:

Named nodes

You can append new content to the last node using `\bzNext{...}`:

`\bzLeft{...}`

Named nodes

You can append new content to the last node using `\bzNext{...}`:

```
\bzLeft{...}\bzNext{...}
```

Named nodes

You can append new content to the last node using `\bzNext{...}`:

```
\bzLeft{...}\bzNext{...}\bzNext{...}
```

Named nodes

You can append new content to the last node using `\bzNext{...}`:

`\bzLeft{...}\bzNext{...}\bzNext{...}`

You can also attach content to the left (once):

Named nodes

You can append new content to the last node using `\bzNext{...}`:

```
\bzLeft{...}\bzNext{...}\bzNext{...}
```

You can also attach content to the left (once):

```
\bzCenter{...}
```

Named nodes

You can append new content to the last node using `\bzNext{...}`:

```
\bzLeft{...}\bzNext{...}\bzNext{...}
```

You can also attach content to the left (once):

```
\bzPrev{...}\bzCenter{...}
```

Named nodes

You can append new content to the last node using `\bzNext{...}`:

```
\bzLeft{...}\bzNext{...}\bzNext{...}
```

You can also attach content to the left (once):

```
\bzPrev{...}\bzCenter{...}\bzNext{...}
```

Named nodes

You can append new content to the last node using `\bzNext{...}`:

```
\bzLeft{...}\bzNext{...}\bzNext{...}
```

You can also attach content to the left (once):

```
\bzPrev{...}\bzCenter{...}\bzNext{...}\bzNext{...}
```

Named nodes

You can append new content to the last node using `\bzNext{...}`:

```
\bzLeft{...}\bzNext{...}\bzNext{...}
```

You can also attach content to the left (once):

```
\bzPrev{...}\bzCenter{...}\bzNext{...}\bzNext{...}
```

Hint: to surround a node:

first use `\bzPrev{...}` and then `\bzNext{...}`!

Named nodes

You can append new content to the last node using `\bzNext{...}`:

```
\bzLeft{...}\bzNext{...}\bzNext{...}
```

You can also attach content to the left (once):

```
\bzPrev{...}\bzCenter{...}\bzNext{...}\bzNext{...}
```

Hint: to surround a node:

first use `\bzPrev{...}` and then `\bzNext{...}`!

This is controlled by a counter named `\bzN`.

Named nodes

You can append new content to the last node using `\bzNext{...}`:

```
\bzLeft{...}\bzNext{...}\bzNext{...}
```

You can also attach content to the left (once):

```
\bzPrev{...}\bzCenter{...}\bzNext{...}\bzNext{...}
```

Hint: to surround a node:

first use `\bzPrev{...}` and then `\bzNext{...}`!

This is controlled by a counter named `\bzN`.

Hint: you should never modify the value of that counter yourself!

Named nodes

You can append new content to the last node using `\bzNext{...}`:

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\bzLeft{...}\bzNext{...}\bzNext{...}
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You can also attach content to the left (once):

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Hint: to surround a node:

first use `\bzPrev{...}` and then `\bzNext{...}`!

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You can store the number of the last node using:

```
\bzEvalInt{\curN}{\bzN}
```

Named nodes

You can append new content to the last node using `\bzNext{...}`:

```
\bzLeft{...}\bzNext{...}\bzNext{...}
```

You can also attach content to the left (once):

```
\bzPrev{...}\bzCenter{...}\bzNext{...}\bzNext{...}
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Named nodes

You can append new content to the last node using `\bzNext{...}`:

```
\bzLeft{...}\bzNext{...}\bzNext{...}
```

You can also attach content to the left (once):

```
\bzPrev{...}\bzCenter{...}\bzNext{...}\bzNext{...}
```

Hint: to surround a node:

first use `\bzPrev{...}` and then `\bzNext{...}`!

This is controlled by a counter named `\bzN`.

Hint: you should never modify the value of that counter yourself!

You can store the number of the last node using:

```
\bzEvalInt{\curN}{\bzN}
```
I'm next

You can later append content to that node using parametrised versions:

```
\bzNext{\bf I'm next}[\curN]
```

Named nodes

You can append new content to the last node using `\bzNext{...}`:

```
\bzLeft{...}\bzNext{...}\bzNext{...}
```

You can also attach content to the left (once):

```
\bzPrev{...}\bzCenter{...}\bzNext{...}\bzNext{...}
```

Hint: to surround a node:

first use `\bzPrev{...}` and then `\bzNext{...}`!

This is controlled by a counter named `\bzN`.

Hint: you should never modify the value of that counter yourself!

You can store the number of the last node using:

I'm prev`\bzEvalInt{\curN}{\bzN}`**I'm next**

You can later append content to that node using parametrised versions:

```
\bzNext{\bf I'm next}[\curN]
\bzPrev{\bf I'm prev}[\curN]
```

Named nodes

You can append new content to the last node using `\bzNext{...}`:

```
\bzLeft{...}\bzNext{...}\bzNext{...}
```

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\bzPrev{...}\bzCenter{...}\bzNext{...}\bzNext{...}
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Hint: to surround a node:

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This is controlled by a counter named `\bzN`.

Hint: you should never modify the value of that counter yourself!

You can store the number of the last node using:

I'm prev`\bzEvalInt{\curN}{\bzN}`**I'm next**

You can later append content to that node using parametrised versions:

```
\bzNext{\bf I'm next}[\curN]
\bzPrev{\bf I'm prev}[\curN]
```

Hint: nodes created by `\bzPrev{...}` do not have labels!

Named nodes — hints and tricks

Named nodes — hints and tricks

Hint: you can style these nodes: `\bzPrev[draw]{...}`

Named nodes — hints and tricks

Hint: you can style these nodes: `\bzPrev[draw]{...}`

To create an aligned large mathematical equation, you can use:

Named nodes — hints and tricks

Hint: you can style these nodes: `\bzPrev[draw]{...}`

To create an aligned large mathematical equation, you can use:

```
\bzCenter[scale=1.3]{$=$}
\bzPrev[scale=1.3]{$\int_a^b f'(x)\ $}
\bzNext[scale=1.3]{$\ f(x)\Big|_a^b$}
```

```
\bzCenter[scale=1.3]{$\leq$}
\bzPrev[scale=1.3]{$\Big|\int_a^b f(x)\Big|\ $}
\bzNext[scale=1.3]{$\ \int_a^b \big|f(x)\big|$}
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Named nodes — hints and tricks

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$$\int_a^b f'(x) = f(x)\Big|_a^b$$

Named nodes — hints and tricks

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However, a similar effect can be also achieved via `[bzR]`, `[bzL]`, and `[bzC]`:

Named nodes — hints and tricks

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However, a similar effect can be also achieved via `[bzR]`, `[bzL]`, and `[bzC]`:

```
\node[bzR] at (5-1, \bzH) {$(f(g(x))'$};
\node[bzC] at (5+0, \bzH) {$=$};
\node[bzL] at (5+1, \bzH) {$(f'(g(x))\cdot g'(x)$};
```

Named nodes — hints and tricks

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$$(f(g(x))' \quad = \quad (f'(g(x)) \cdot g'(x)$$

Named nodes — hints and tricks

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```

$$(f(g(x))' \quad = \quad (f'(g(x)) \cdot g'(x)$$

Hint: you can break a word using `[bzR]` and `[bzL]` (and the nodes match):

Named nodes — hints and tricks

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$$(f(g(x))' \quad = \quad (f'(g(x)) \cdot g'(x)$$

Hint: you can break a word using `[bzR]` and `[bzL]` (and the nodes match):

```
\node[bzR] at (0, \bzH) {deoxyribo}; \node[bzL] at (0, \bzH) {nucleic acid};
```

Named nodes — hints and tricks

Hint: you can style these nodes: `\bzPrev[draw]{...}`

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```

deoxyribo

Named nodes — hints and tricks

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\bzCenter[scale=1.3]{$=$}
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```

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```

deoxyribonucleic acid

Named nodes — explicit references

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Let's create a referable node:

Named nodes — explicit references

Let's create a referable node:

```
\bzCenter{Referable node!}
\bzEvalInt{\nodeN}{\bzN}
```

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```

Referable node!

It's label can be obtained by `\bzLabel{\nodeN}`:

Named nodes — explicit references

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```
\bzCenter{Referable node!}
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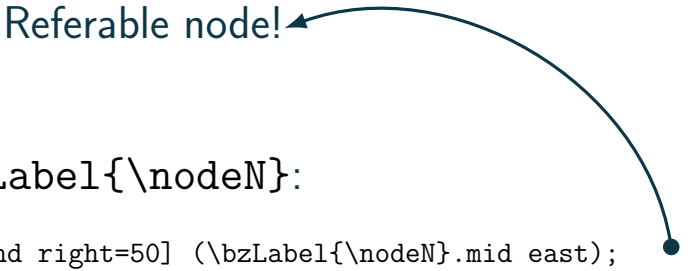
```



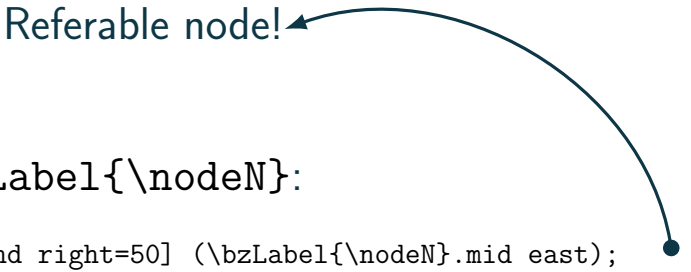
It's label can be obtained by `\bzLabel{\nodeN}`:

```
\draw (7, \bzH) edge[Circle-Latex, bend right=50] (\bzLabel{\nodeN}.mid east);
```

Named nodes — explicit references

Let's create a referable node:

```
\bzCenter{Referable node!}
\bzEvalInt{\nodeN}{\bzN}
```



It's label can be obtained by `\bzLabel{\nodeN}`:

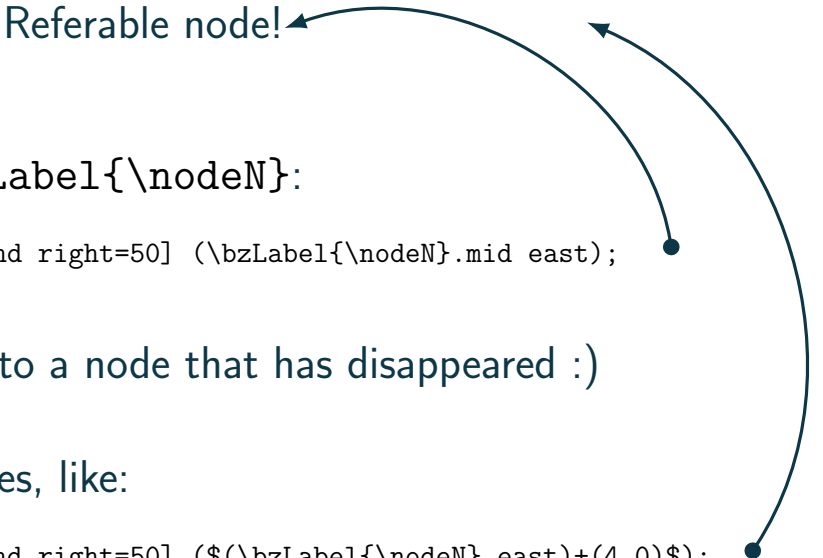
```
\draw (7, \bzH) edge[Circle-Latex, bend right=50] (\bzLabel{\nodeN}.mid east);
```

Hint: you cannot draw relatively to a node that has disappeared :)

Named nodes — explicit references

Let's create a referable node:

```
\bzCenter{Referable node!}
\bzEvalInt{\nodeN}{\bzN}
```



It's label can be obtained by `\bzLabel{\nodeN}`:

```
\draw (7, \bzH) edge[Circle-Latex, bend right=50] (\bzLabel{\nodeN}.mid east);
```

Hint: you cannot draw relatively to a node that has disappeared :)

You may use `calc`-based references, like:

```
\draw (8, \bzH) edge[Circle-Latex, bend right=50] ($(\bzLabel{\nodeN}.east)+(4,0)$);
```

Named nodes — explicit references

Let's create a referable node:

```
\bzCenter{Referable node!}
\bzEvalInt{\nodeN}{\bzN}
```

Referable node!

the one

It's label can be obtained by `\bzLabel{\nodeN}`:

```
\draw (7, \bzH) edge[Circle-Latex, bend right=50] (\bzLabel{\nodeN}.mid east);
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Hint: you cannot draw relatively to a node that has disappeared :)

You may use `calc`-based references, like:

```
\draw (8, \bzH) edge[Circle-Latex, bend right=50] ($(\bzLabel{\nodeN}.east)+(4,0)$);
```

You may also use the great `|-` and `-|` features of Ti*k*Z:

```
\coordinate (base) at ($(\bzLabel{\nodeN}.east)+(0,-0.5)$);
\draw
    (\bzLabel{\nodeN}.west |- base)
    edge[bzBraceU] node{the one}
    (base -| \bzLabel{\nodeN}.east);
```

Braces

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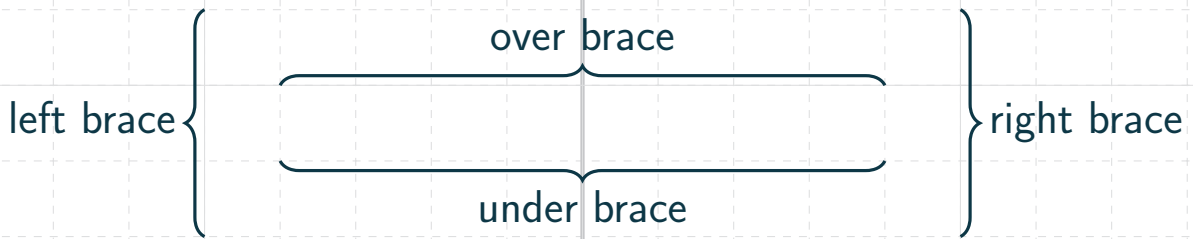
```
\path (-4, -11) edge[bzBraceU] node{under brace} (+4, -11);
\path (-4, -6)  edge[bzBraceO] node{over brace}  (+4, -6);
\path (-5, -10) edge[bzBraceL] node{left brace}  (-5, -7);
\path (+5, -10) edge[bzBraceR] node{right brace} (+5, -7);
```



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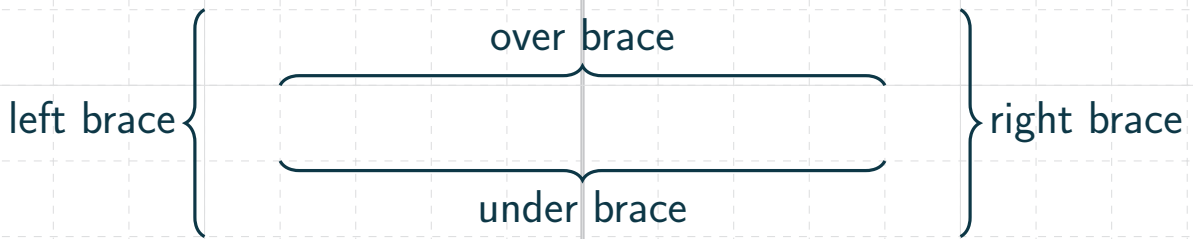

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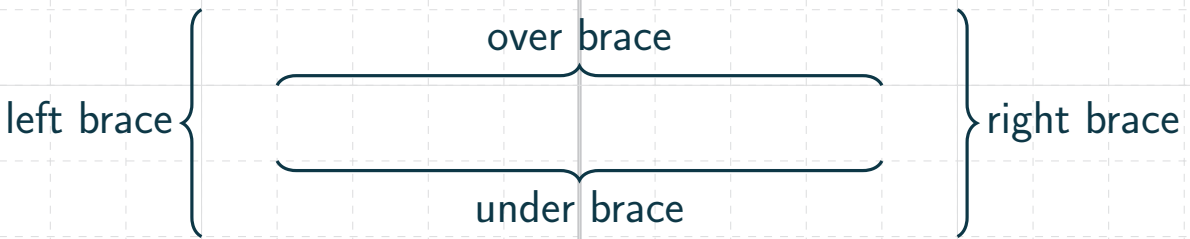

You can also create braces similarly to `\bzNext{...}`:

```
\bzCenter{First}
\bzBraceU{1}
\bzNext{\ }

\bzNext{Second}
\bzEvalInt{\secondN}{\bzN}
\bzNext{\ }

\bzNext{Third}
\bzBraceU{3}

\bzBraceU{2}[\secondN]
```

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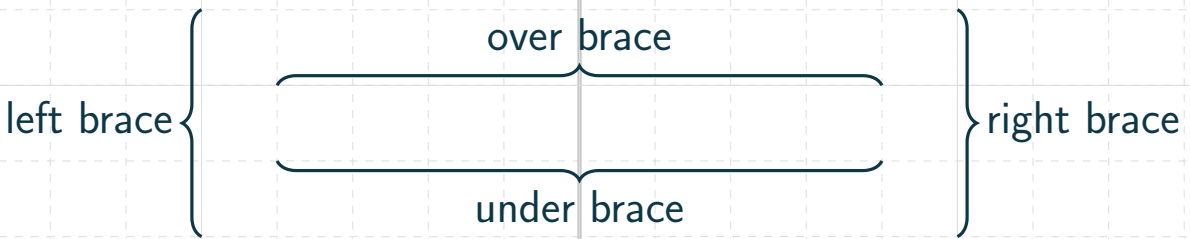

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The basic command is `\bzBlock{...}{...}`:

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which produces a simple block with border, positioned relatively to `\bzH`:

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`\bzBlock[fill=red]{...}{...}`

The topmost block of this frame is obtained as:

```
\bzBlock[draw=none, fill=\bzCtext, opacity=0.4]{0.5}{0.5}
\bzBlock[]{0.5}{1.5}
\bzCenter[bzEB]{Beamer-like blocks}
\bzLeft{You can draw blocks like in Beamer.}
```

Class options — font size and `plain`

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\documentclass[large]{beamerikz}
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All the class options are processed sequentially, so the following code gives the default 17pt font size:

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\documentclass[large, small, basic, large, basic, large, basic]{beamerikz}
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```

If you really hate "Powered by BeamerikZ" on the first plain frame, use the class option `plain`.

Class options — 16:9

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Package option `wide` sets the aspect ratio of the presentation to 16:9

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However, the horizontal space is then: (-13.0 – +13.0) (plus margins)

This means that the default value of `bzI` becomes -13

Class options — [show] frames

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The same option applies to the "plain" frames:

```
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Hint: to make use of these options, read on!

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- `final` — the default option, when all the frames are normally compiled
- `ready` — similar to `final`, but add compile info (see later)

Class options — compilation modes

Similarly as `normal` and `large`, `BeamerikZ` reacts to the following options:

- `final` — the default option, when all the frames are normally compiled
- `ready` — similar to `final`, but add compile info (see later)
- `draft` — compiles `[show]` frames, others are made one-shot

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- `brief` — compiles only `[show]` frames, others are blank

Thus, in terms of compilation time we get (assuming few `[show]` frames):

$$\texttt{brief} < \texttt{short} \leq \texttt{draft} < \texttt{final} \leq \texttt{ready}$$

Class options — `draft` and `brief`

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   Hint: use this counter to synchronize `\bzIn{from}{to}{...}` arguments!

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2. A slide counter in the bottom left of each `[show]` frame.

   Hint: use this counter to synchronize `\bzIn{from}{to}{...}` arguments!

Moreover, `draft` forces Beamer to use `draft` to speed-up the compilation process.

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Where it adds an additional `\bzOn{...}` with the time of the current recompilation, written on the bottom of the slide.

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It serves two purposes:

- Makes it easier for you to make sure which version you are to present.
- Allows you to test your slide-switcher without unravelling the next slide :)

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- Kamila Łyczek for support,
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