A very brief introduction to \LaTeX{} and beamer

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This is some text with some math right in the middle of a regular paragraph: $\int_{0}^{\pi} x^2 \, dx = \pi^3 / 3$. Look at that! This is said to be an *inline* equation.
More on inline equations

If you don’t use math mode, people will laugh at you:

**RIGHT**: Let $m$ and $n$ be integers with $m = n$.

**WRONG**: Let $m$ and $n$ be integers with $m = n$. 
Still more on inline equations

There are a few special cases, though. Note that the name of the sine function looks silly in math mode.

**RIGHT**: \(\sin(x)\).

**WRONG**: \(sin(x)\).

The same is true of natural log (use \(\ln\), cosine (\(\cos\)), and a few others.
If an equation is important, you can put it in *display* mode instead of inline mode. This gives it a little more prominence. Here, for example, is an important fact.

\[
\frac{x}{y} + \frac{w}{z} = \frac{xz + wy}{yz}.
\]
Watch out for plain text in displayed equations!

This is pretty ugly:

\[ \forall \theta, \theta + 2\theta = 3\theta. \]
What to do about it

Do this:

For all $\theta$, $\theta + 2\theta = 3\theta$.

Or maybe even this:

For all $\theta$, $\theta + 2\theta = 3\theta$. 
Lots and lots of symbols are available in \LaTeX

\[
\ln \left( \prod_{\xi=1}^{\nu} \vartheta_{\xi} \right) = \sum_{\iota=1}^{\sqrt{\nu^2}} \ln(\vartheta_{\iota}).
\]
A bulleted list

- $1^1 + 6^1 = 7^1$
- $3^2 + 4^2 = 5^2$
- Are there nonzero integers $a$, $b$, and $c$ such that $a^3 + b^3 = c^3$?
1. $1^1 + 6^1 = 7^1$
2. $3^2 + 4^2 = 5^2$
3. Are there nonzero integers $a$, $b$, and $c$ such that $a^3 + b^3 = c^3$?
A numbered list with customized “numbers”

One  $1^1 + 6^1 = 7^1$

B  $3^2 + 4^2 = 5^2$

Third  Are there nonzero integers $a$, $b$, and $c$ such that $a^3 + b^3 = c^3$?
An aligned equation

\[(x + y)(x - y) = x^2 + xy - xy - y^2\]
\[= x^2 - y^2\]
\[\leq x^2\]
A table of data

I stole these examples from http://en.wikibooks.org/wiki/LaTeX/Tables which you are encouraged to visit.

```
1 2 3
4 5 6
7 8 9
```
A more complicated table of data

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
</tbody>
</table>
Even more complicated

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>7C0</td>
<td>hexadecimal</td>
<td></td>
</tr>
<tr>
<td>3700</td>
<td>octal</td>
<td></td>
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<tr>
<td>11111000000</td>
<td>binary</td>
<td></td>
</tr>
<tr>
<td>1984</td>
<td>decimal</td>
<td></td>
</tr>
</tbody>
</table>
Adding a graphic
Now let’s do some beamer
Now let’s do some beamer

The most common effect you’ll need is to be able to reveal just a bit at a time.
Now let’s do some beamer

The most common effect you’ll need is to be able to reveal just a bit at a time.

Fortunately,
Now let’s do some beamer

The most common effect you’ll need is to be able to reveal just a bit at a time.

Fortunately, this is easy.
More complicated reveals
More complicated reveals
More complicated reveals

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
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<td>1</td>
<td>2</td>
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</tbody>
</table>
More complicated reveals

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>hello</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>
More complicated reveals

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>hello</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
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</tbody>
</table>
More complicated reveals

<table>
<thead>
<tr>
<th></th>
<th>2</th>
<th>hello</th>
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<tbody>
<tr>
<td>4</td>
<td>5</td>
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More complicated reveals
More complicated reveals

<p>| | | |</p>
<table>
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More complicated reveals

<table>
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</thead>
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<tr>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>
Columns
Columns

Left column
blah blah blah blah blah blah
blah blah blah blah blah blah
blah blah blah blah blah blah
blah blah blah blah blah blah
blah blah blah blah blah blah
Columns

Left column
blah blah blah blah blah blah
blah blah blah blah blah blah
blah blah blah blah blah blah
blah blah blah blah blah blah

Right column
blah blah blah blah blah blah blah
blah blah blah blah blah blah
blah blah blah blah blah blah
blah blah blah blah blah blah
# More Columns

**Skinny column**
- blah blah
- blah blah
- blah blah
- blah blah
- blah blah
- blah blah
- blah blah
- blah blah

**Wide column**
- blah blah blah blah blah blah
- blah blah blah blah blah blah
- blah blah blah blah blah blah
- blah blah blah blah blah blah
- blah blah blah blah blah blah
- blah blah blah blah blah blah
- blah blah blah blah blah blah
- blah blah blah blah blah blah
<table>
<thead>
<tr>
<th>Left column</th>
<th>Middle column</th>
<th>Right column</th>
</tr>
</thead>
<tbody>
<tr>
<td>blah blah blah blah</td>
<td>blah blah blah blah</td>
<td>blah blah blah blah</td>
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<td>blah blah blah blah</td>
</tr>
</tbody>
</table>
More Columns

This is some comment that applies to all the junk in all the columns. Therefore, it spans the entire slide.

<table>
<thead>
<tr>
<th>Left column</th>
<th>Middle column</th>
<th>Right column</th>
</tr>
</thead>
<tbody>
<tr>
<td>blah blah blah blah</td>
<td>blah blah blah blah</td>
<td>blah blah blah blah</td>
</tr>
</tbody>
</table>

Isn’t it nice that we can make things span the entire slide?
More Columns

<table>
<thead>
<tr>
<th>Left column</th>
<th>Middle column</th>
<th>Right column</th>
</tr>
</thead>
<tbody>
<tr>
<td>blah blah blah blah</td>
<td>blah blah blah blah</td>
<td>blah blah blah blah blah</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bottom Left column</th>
<th>Bottom Right column</th>
</tr>
</thead>
<tbody>
<tr>
<td>blah blah blah blah</td>
<td>blah blah blah blah</td>
</tr>
</tbody>
</table>
Sizing images
Sizing images II

Small

Medium

Large