A very brief introduction to LaTeX and beamer

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Typesetting Equations

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.

Displayed Equations

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:

$$\text{For all } \theta, \theta + 2\theta = 3\theta.$$

Or maybe even this:

$$\text{For all } \theta, \quad \theta + 2\theta = 3\theta.$$

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 integeters a, b, and c such that $a^3 + b^3 = c^3$?

A numbered list

1. $1^1 + 6^1 = 7^1$
2. $3^2 + 4^2 = 5^2$
3. Are there nonzero integeters 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 integeters a, b, and c such that $a^3 + b^3 = c^3$?

An aligned equation

$$\begin{aligned}(x+y)(x-y) &= x^2 + xy - xy - y^2 \\ &= x^2 - y^2 \\ &\leq x^2\end{aligned}$$

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

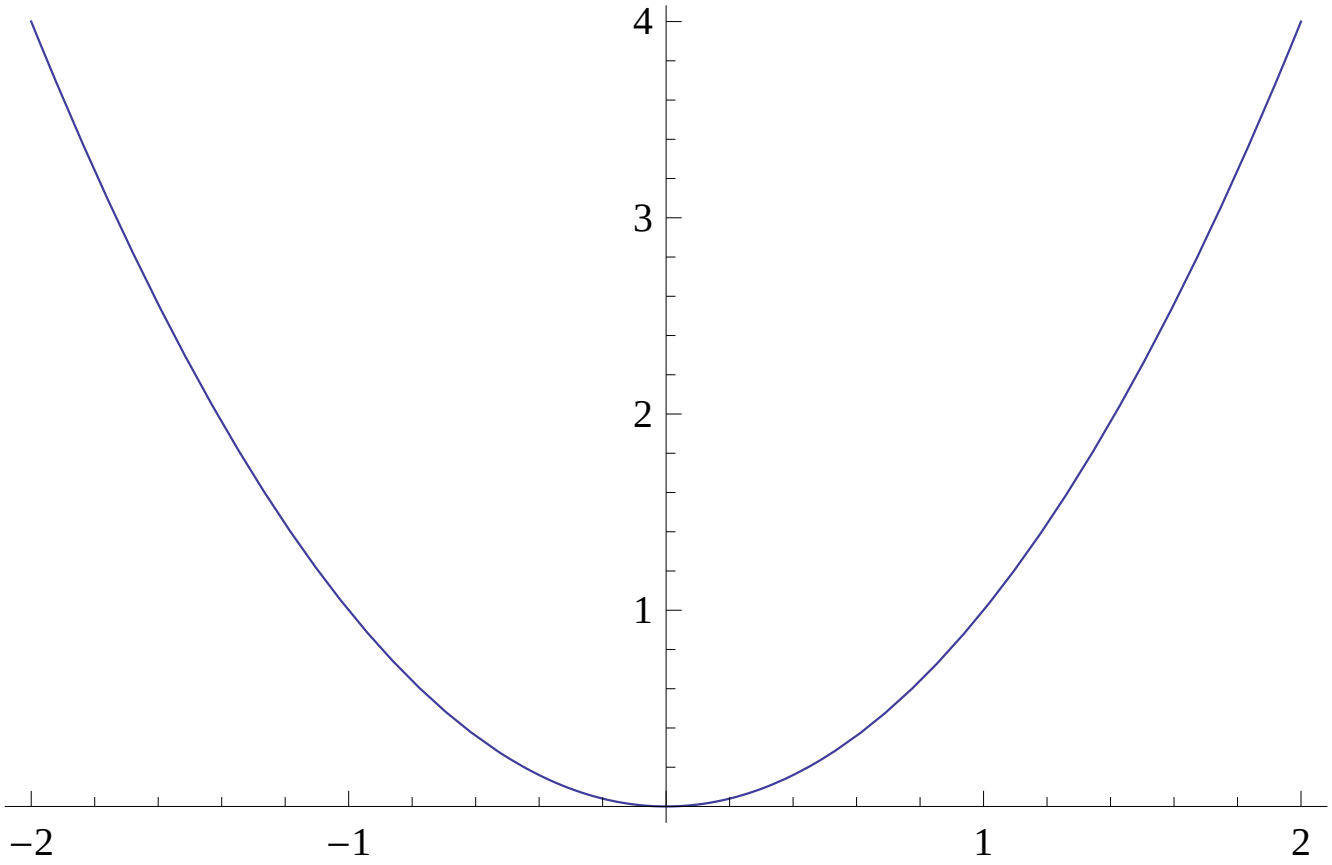
A more complicated table of data

1	2	3
4	5	6
7	8	9

Even more complicated

7C0	hexadecimal
3700	octal
11111000000	binary
1984	decimal

Adding a graphic



Now let's do some beamer

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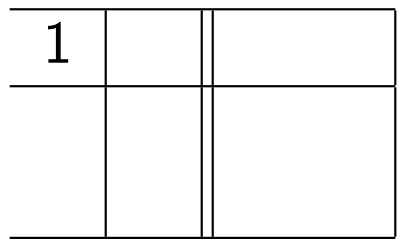
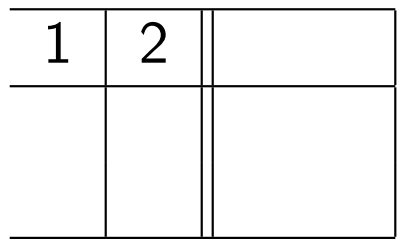
Fortunately, this is easy.

More complicated reveals

More complicated reveals



More complicated reveals



More complicated reveals

1	2	hello

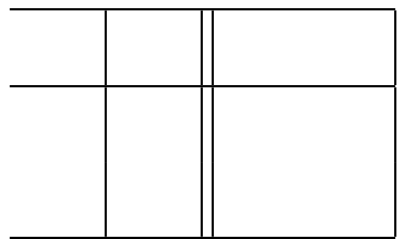
More complicated reveals

1	2	hello
4	5	6

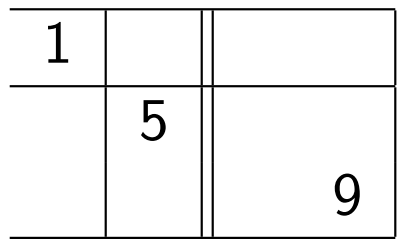
More complicated reveals

1	2	hello
4	5	6
7	8	9

More complicated reveals



More complicated reveals



More complicated reveals

		hello
7	5	

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

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

More Columns

Skinny
column
blah blah
blah blah
blah blah
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

More 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

Middle 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

More Columns

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

Left column
blah blah blah blah

Middle column
blah blah blah blah

Right column
blah blah blah blah

Isn't it nice that we can make things span the entire slide?

More Columns

Left column
blah blah blah blah

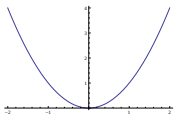
Middle column
blah blah blah blah

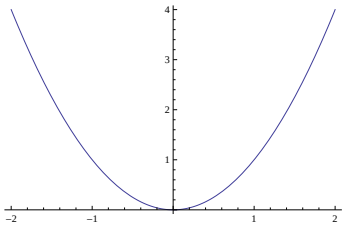
Right column
blah blah blah blah

Bottom Left column
blah blah blah blah

Bottom Right column
blah blah blah blah

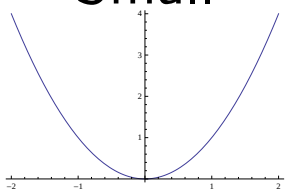
Sizing images



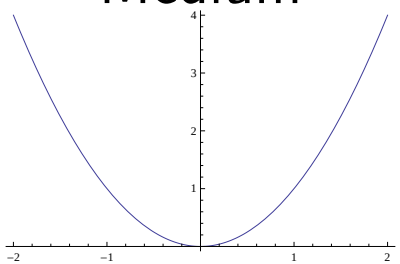
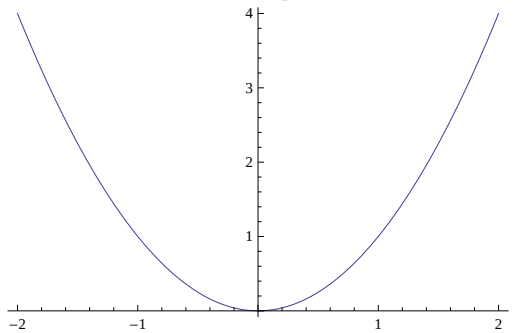


Sizing images II

Small



Medium



Large